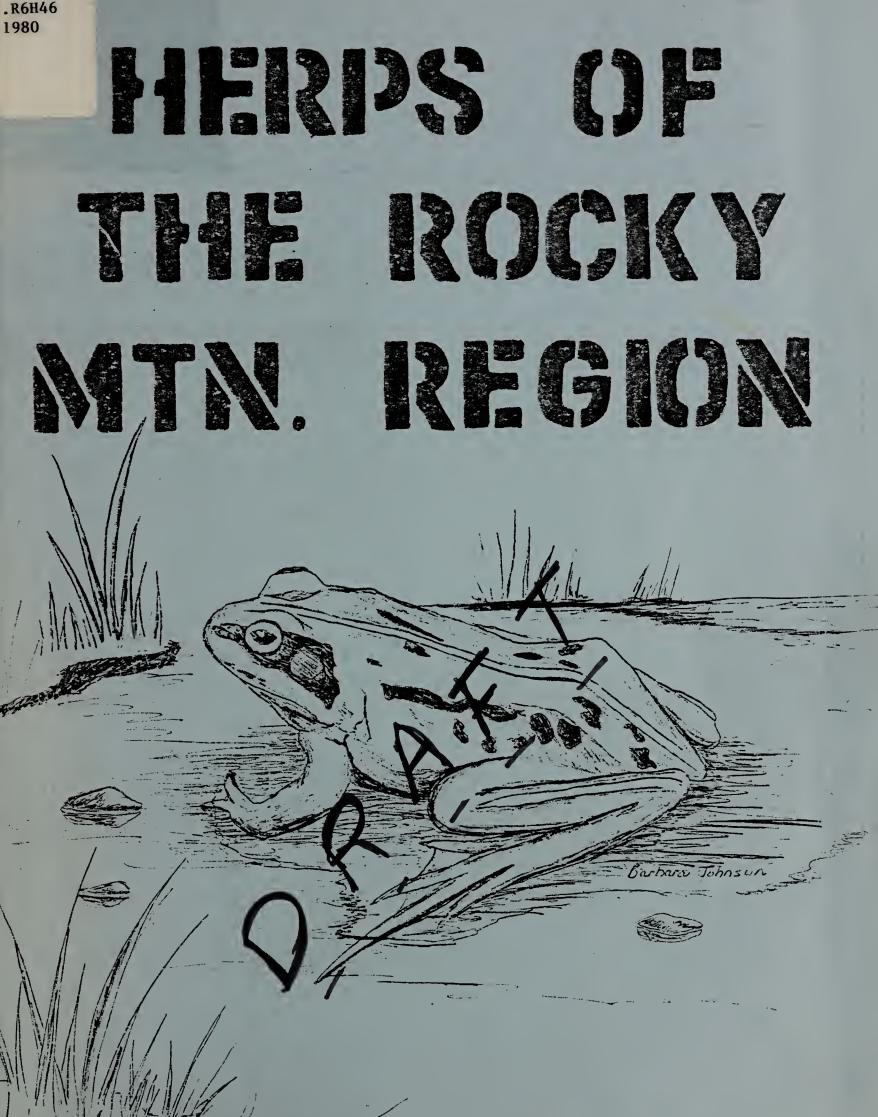
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# WILDLIFE HABITAT RELATIONSHIPS DATA FOR THE FOREST SERVICE - REGION 2

This booklet contains species narratives on amphibians and reptiles that inhabit the Rocky Mountain Region. Species are listed alphabetically by common name. It is one booklet of four (Herps, Mammals, Birds and Fish) which describe life histories for 816 wildlife species.

The Wildlife Habitat Relationship Data also contains relationship matrix booklets for each of the four groups and relate species biological needs with 24 plant associations. Status by State and National Forest are listed for all species in another matrix booklet. The matrix information has been entered in the Fort Collins Computer Center, and information can be sorted and analyzed quickly.

The data was developed by Forest biologists in Region 2. Overall coordination, however, was provided by the Regional Office.

June 1980

U.S. Forest Service



SUBJECT STORY

AMPHIBIANS



## BULLFROG (Rana catesbeiana)

- STATUS Game, native.
- DISTRIBUTION/HABITAT Widespread throughout U.S., Atlantic Coast to eastern Colorado and eastern New Mexico: Southern Canada to northeastern New Mexico. Introduced west of Rockies, Hawaiian Islands, Mexico, Cuba, Japan and Italy. Highly aquatic, remaining in or near permanent water, its activities largely independent of rainfall.
- SPECIAL HABITAT REQUIREMENTS Open water of some type for breeding.
- BREEDING In the west, March to July. Eggs are laid in permanent water. Clutch size numbers in the thousands.
- TERRITORY/HOME RANGE Territory restricted to vicinity of calling male. Home range unknown.
- FOOD HABITS Voracious feeder, waits for and pounces on anything it can catch and swallow near pond edges and streams.
- OTHER Known to be detrimental to native species of frogs. Our largest frog.
- REFERENCES Stebbins (1966); Wyo. G&F Dept. (1974).

A002

CRAWFISH FROG (Rana areolata)

## STATUS -

- <u>DISTRIBUTION/HABITAT</u> Limited to Central U. S.: eastern Kansas in cottonwood willow.
- SPECIAL HABITAT REQUIREMENTS Old crayfish burrows near ponds in low meadowlands are used during daytime. Mammal burrows and holes in roadside banks are also used.
- BREEDING Eggs laid from March to mid-May in temporary roadside and pasture pools in masses of about 7,000. Tadpoles change during summer.

TERRITORY/HOME RANGE - Unknown

FOOD HABITS - Consumes spiders, crickets, beetles, ants and crayfish.

REFERENCES - Wright and Wright (1949); Collins (1974).

GREEN FROG (Rana clamitans)

STATUS - Introduced in west.

DISTRIBUTION/HABITAT - Widespread throughout U.S.: found in South Dakota. Inhabits tallgrass and cottonwood-willow areas.

SPECIAL HABITAT REQUIREMENTS - Restricted mainly to aquatic sites ranging from large, deep ponds and reservoirs to shallow ponds and pools. Also, marshes, streams and springs.

BREEDING - Eggs are laid from March to August (Eastern U.S.) in masses approximating 1,000-4,000. Transformation occurs April through September of the next year after overwintering as tadpoles.

TERRITORY/HOME RANGE - Territorial; have home ranges.

FOOD HABITS - Consumes terrestrial insects.

OTHER - Hibernates in water.

REFERENCES - Wright and Wright (1949); Bernard and Brown (1977); Brode (1959).

A004

NORTHERN CRICKET FROG (Acris crepitans)

STATUS - Endangered.

DISTRIBUTION/HABITAT - Widespread throughout U. S.: Colorado, Kansas, Nebraska, South Dakota. Shortgrass plains; riparian; cottonwood-willow; mid and tallgrass plains. Elevational range to 5,000 feet (1,525m).

SPECIAL HABITAT REQUIREMENTS - Found in permanent, shallow water, e.g., springs, stream edges, margins of lakes, ponds in pastures, bogs; also, along ditches, canals, ponds in grassy areas, and shore vegetation.

BREEDING - Eggs laid April through July (in North) either single or in small masses. Breeds in permanent lakes, streams and springs if abundant; or breeds in temporary pools in pastures. Requires shallow, quiet water (with plants) for reproduction. Tadpoles transform during September within 50 to 90 days.

TERRITORY/HOME RANGE - Unknown.

FOOD HABITS - Consumes aquatic insects, arachnids, crustaceans.

OTHER - Terrestrial; active all year but midwinters in North.

REFERENCES - Wright and Wright (1949); Stebbins (1966).

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37,80,3 80 117 13 1-20 NORTHERN LEOPARD FROG (Rana pipiens)

- STATUS No legal status in any states within Region 2. Protected by permit system in North Dakota.
- DISTRIBUTION/HABITAT Widely distributed in North America and found from southern Labrador to extreme southern District of McKenzie, southern Kentucky in the East, west to the Pacific states, and southwest to Nevada, Arizona, and New Mexico.

  Occurs in Northern Great Plains. Inhabits primarily areas in and around emergent, aquatic and shoreline vegetation associated with riparian habitats of all types from subalpine and montane regions to piedmont, great plains, and desert grassland and scrub communities. Also, uses open fields and meadows adjacent to marshes, ponds, lakes, and streams where frogs feed during summer and deep lakes and streams used for winter retreat.
- SPECIAL HABITAT REQUIREMENTS Require bodies of water for breeding, hibernation and escape cover (during warm months).

  During winter, they dig into mud and leaves of lake and stream bottoms. During summer, adults prefer grassy areas wet meadows and swampy areas surrounding pools and marshes. Areas with 100% vegetative ground cover are preferred. Open, barren-ground heavily grazed pasture and sandy areas are avoided. Grassy areas a meter (3.3 feet) or more high are seldom used; whereas grassy areas 15-30 cm (6-12 in.) in height were most used. Moisture affects distribution and movement is greatest on rainy nights or days with rain or dew-covered vegetation. Lack of oxygen, for example in lake bottoms, affects concentration of frogs during winter, therefore driving them to bottoms of well-aerated water spillways and rapidly flowing streams.
- BREEDING Migrates from overwintering sites to ponds, springs, creeks, rivers and marshes for breeding. (Uses permanent or temporary water in Colorado.) Eggs laid day or night (usually night) attached to vegetation in 40 cm (16 in.) or less water in north side of a pond. Water temperatures of 37-95°F (3-35°C) are tolerated during breeding. Eggs are a flattened spherical mass in a firm regular cluster numbering 3-6,000. Eggs hatch 15 to 20 days, and larvae transform in 60 to 80 days.
- TERRITORY/HOME RANGE Territory unknown; home range depends upon size and quality of available habitat, size and sex of individual and population density. Adults return to summer ranges of which may range in size from 72-540 square meters (80-600 square yards) in Michigan. Newly metamorphosed frogs may stay within 800 m (875 yd) of original pond or move to permanent water some 5 km (3 mi) away. Feeding ranges of large frogs may be 6 km (3.8 mi) or less from water but are located on clearings with much dead surface vegetation in a moist area.

- FOOD HABITS Feeds mostly on arthropods: Tenebrionid beetles, crickets, grasshoppers, aphids, libellulids, coleoptera, ants, spiders, orthoptera, diptera. Also, eats earthworms, snails and slugs. Tadpoles are herbivores and scavengers. May chase low-flying prey within their sight. Prime feeding grounds for larger frogs are insect infested drier parts of habitat.
- OTHER Management: During the last 10 years the ranid population has declined by an estimated 50%. The frog populations are not rebounding from natural losses and collecting pressure.
- REFERENCES Merrell (1970 and 1977), Emery et al. (1972), Dole (1965a, b and 1971).

PICKEREL FROG (Rana palustris)

<u>STATUS</u> - Threatened (in Kansas).

DISTRIBUTION/HABITAT - Widespread throughout eastern and central U.S.: southeastern Kansas. Crevices of caves and limestone.

SPECIAL HABITAT REQUIREMENTS - Aquatic sites, mainly cool or cold flowing streams, sphagnum bogs, mill pond shallows or waters of rocky ravines; also, meadow streams, grass or weed fields (in summer).

BREEDING - Eggs laid from April to May in water and approximating 2,000-3,000. Hatching occurs in water and transformation takes 70 to 80 days (occurring in August).

TERRITORY/HOME RANGE - Unknown.

FOOD HABITS - Consumes terrestrial insects.

OTHER - Hibernates in water.

REFERENCES - Wright and Wright (1949); Collins (1974).

A007

SPOTTED CHORUS FROG (Pseudacris clarki)

STATUS -

DISTRIBUTION/HABITAT - Restricted to three states in Midwest U.S. (Kansas, Oklahoma, Texas): south-central Kansas. Moist grassland prairies; edges of woodland.

SPECIAL HABITAT REQUIREMENTS - Found in great numbers near marshes.

BREEDING - Eggs laid from March to May (possibly to mid-August) in temporary pools (grassy ponds, roadside ditches, shallow water-lily ponds) on grass, stems or below water surface in small masses of 6-30. Eggs hatch in 2 to 10 days. Tadpoles change after 30 to 45 days (April through June). Spring rains needed for breeding.

TERRITORY/HOME RANGE - Unknown.

FOOD HABITS - Consumes small insects.

OTHER -

REFERENCES - Wright and Wright (1949); Collins (1974).

# SPOTTED FROG (Rana pretiosa)

## STATUS -

- DISTRIBUTION/HABITAT Parts of northwestern U.S.: western Wyoming. douglas-fir; spruce-fir; alpine meadow; sagebrush. Ranges elevationally up to 8,500 feet (2,590m). Found above 6,000 feet (1,830m) in Wyoming.
- SPECIAL HABITAT REQUIREMENTS Aquatic sites of wood and meadow areas which have cold permanent pools, and mountainous lakes and streams.
- BREEDING Eggs laid February through July approximating 1,100-1,500.

  Tadpoles change from June to August (after 30 days).
- TERRITORY/HOME RANGE Unknown.
- FOOD HABITS Consumes slugs, snails, sowbugs, millipedes, spiders, beetles and ants.
- OTHER Disturbance of aquatic habitat due to mining, lumber operations or industrial land use may result in danger to species.
- REFERENCES Wright and Wright (1949); Bernard and Brown (1977); Dunlap (1977).

STRIPED CHORUS FROG (Pseudacris triseriata)

STATUS - Non-game, native.

- DISTRIBUTION/HABITAT Widespread: Great Bear Lake in northwestern Canada to Gulf of Mexico. New Jersey to central Arizona and eastern border of Great Basin (Utah and Nevada). Found in Colorado, Kansas, Nebraska, Wyoming, South Dakota. Grasslands to subalpine. Elevationally ranges from 4,900 to above 10,000 feet (1,531-3,125m).
- SPECIAL HABITAT REQUIREMENTS Found in lakeside or stream marshes, damp meadows and marshy grasslands. Also, coniferous forests and shrub/brush areas. Needs semi-permanent to permanent moisture.
- BREEDING Breeds from March to May with 20-100 eggs laid per mass (1,500 eggs per female). Tadpoles transform after 40 to 90 days (during June); or, 1 summer (plains) to 2 seasons (montaine areas). In the open, needs temporary pools (from summer rains) and/or ditches to breed in. In dense woods, needs still, clear and more permanent water for breeding.

TERRITORY/HOME RANGE - Territory unknown; definite home range.

FOOD HABITS - Consumes insects: mites, spiders, centipedes.

OTHER - Mainly terrestrial, but does climb low shrubs. Adapts well to human habitation. "Choruses" occur night and day during breeding season.

REFERENCES - Wright and Wright (1949); Langolis (1978); Kramer (1974).

## ROCKY MOUNTAIN WOOD FROG (Rana sylvatica)

- STATUS Listed as threatened by the State of Colorado. The frog has a wide distribution in the Northeastern and Eastern U.S., Canada, Midwestern U.S. and Alaska. However, only a small disjunct population exists in the Rocky Mountains and it is vulnerable to habitat change.
- DISTRIBUTION/HABITAT Is found in the montane plant community of northcentral Colorado and parts of Wyoming. It is adapted (and restricted) to cold, protected ponds at elevations between 8,000 and 9,700 feet.
- SPECIAL HABITAT REQUIREMENTS Tree-lined ponds with tall trees right up to waters edge.
- BREEDING Breeds only in tree-lined ponds where water temperatures stay between 45 and 68°F March to July. Mating most often occurs at night, sometimes during the day. Eggs deposited in spherical masses, less than 155 mm in diameter. Eggs deposited in clear shallow ponds near surface to .15 m deep and are attached to vegetation.
- TERRITORY/HOME RANGE No data available.
- FOOD HABITS Feeds chiefly on insects and to a lesser extent on snails, slugs, and earthworms; beetles, flies, and hymenopterans are primary insects taken. Also eat small millipedes, snails, and other invertebrates of moderate size. Newly transformed forglets may take aquatic forms of invertebrates.
- OTHER Loss of breeding habitat is usually caused by vegetation removal and/or the introduction of predatory fishes.
- REFERENCES Bagdonas (1968 and 1971), Wright and Wright (1949), Stebbins (1951 and 1954), Moore and Strickland (1955).

## HELLBENDER (Cryptobranchus alleganiensis)

#### STATUS -

- DISTRIBUTION/HABITAT Limited to northeastern U.S. and some north-central U.S.: found in southeast corner of Kansas. Streams and rivers.
- SPECIAL HABITAT REQUIREMENTS Aquatic sites such as large, fastflowing streams and rivers in which it gets shelter from objects on bottom.
- BREEDING Eggs laid from August to September in nests underneath rocks of streambed or riverbed. Numbers approximate 300-450 per mass. Eggs hatch in 9 to 12 weeks.

TERRITORY/HOME RANGE - Territorial; has a home range.

FOOD HABITS - Consumes earthworms, crayfish, aquatic insects.

OTHER -

REFERENCES - Bishop (1943); Hillis and Bellis (1971); Collins (1974).

A012

## MUDPUPPY (Necturus maculosus)

#### STATUS -

- <u>U.S. from Canada to Texas:</u> found in eastern Kansas, Nebraska, South Dakota. Cottonwood-willow.
- SPECIAL HABITAT REQUIREMENTS Aquatic: occurs in muddy canals, drainage ditches, clear lakes and streams, ponds, permanent waters.
- BREEDING Mating occurs in the fall and eggs are laid May through
  June the next year. Hatchlings appear in 38 to 63 days and
  are dependent on water temperature for hatching.

TERRITORY/HOME RANGE - Unknown.

FOOD HABITS - Consumes fish and their eggs, aquatic insects, mollusks, crayfish.

OTHER - Nocturnal.

REFERENCES - Bishop (1943); Collins (1974).

EASTERN NEWT (Notophthalmus viridescens)

STATUS -

<u>DISTRIBUTION/HABITAT</u> - Cottonwood-willow.

SPECIAL HABITAT REQUIREMENTS - Adults: found in ponds, streams, pools in open and wooded areas. Young (efts): found in moist areas in forest sites.

BREEDING - Eggs laid in spring approximating 200-375 and deposited on aquatic plant stems or leaves. Incubation is from 20 to 35 days, and transformation occurs August through October.

TERRITORY/HOME RANGE - Unknown.

FOOD HABITS - Eats primarily small invertebrates.

OTHER -

REFERENCES - Bishop (1943).

A014

SPRING PEEPER (Hyla crucifer)

STATUS -

U.S.: found in eastern Kansas, eastern Nebraska. Woodlands: cutover woodlots and brushy second growth near ponds.

SPECIAL HABITAT REQUIREMENTS - Found in permanent or temporary, and grassy or muddy ponds, pools, ditches, marshes (open lowland).

BREEDING - Eggs laid April through June and number 800-1,000. Eggs hatch in 4 to 5 days. Tadpoles transform after 90 to 100 days.

TERRITORY/HOME RANGE - Unknown.

FOOD HABITS - Consumes small insects.

OTHER -

REFERENCES - Wright and Wright (1949); Collins (1974).

## COUCH'S SPADEFOOT (Scaphiopus couchi)

#### STATUS -

- <u>DISTRIBUTION/HABITAT</u> Restricted to south-central U.S.: found in Colorado. Shortgrass plains.
- SPECIAL HABITAT REQUIREMENTS Aquatic. Uses subterranean burrows usually under logs. Prefers substrates which are not too coarse or rocky.
- BREEDING Eggs laid from May to September in temporary pools resulting from heavy summer rains. Tadpoles change after 15 to 40 days. Terrestrial when not breeding.

TERRITORY/HOME RANGE - Unknown.

FOOD HABITS - Consumes invertebrates and insects.

OTHER - Mainly nocturnal, especially during spring and summer rains.

REFERENCES - Wright and Wright (1949); Bernard and Brown (1977); Stebbins (1966).

A016

GREAT BASIN SPADEFOOT (Scaphiopus intermontanus)

#### STATUS -

- DISTRIBUTION/HABITAT Widespread along western U.S.: found in Colorado, Wyoming. Sagebrush; pinyon-juniper; Gambel oak; open areas. Ranges elevationally to 8,500 feet (2,592.5m)
- SPECIAL HABITAT REQUIREMENTS Permanent or semi-permanent aquatic sites,, rain puddles, stream edges, canyon pools. Water is usually cold.
- BREEDING Eggs laid from April to July. Uses permanent ponds and rain pools for breeding which accounts for a fast larval development based on existence of rain-filled pools. Tadpoles change from May to June or July to September.

TERRITORY/HOME RANGE - Unknown.

FOOD HABITS - Consumes insects.

OTHER - Nocturnal. Will burrow or use burrows of other animals in dry weather.

REFERENCES - Wright and Wright (1949); Bernard and Brown (1977); Stebbins (1966).

## PLAINS SPADEFOOT (Scaphiopus bombifrons)

#### STATUS -

plains from Canada to Texas and from Missouri to Oklahoma:
found in eastern Colorado, Wyoming, Nebraska, Kansas, and
South Dakota. Open Grasslands: shortgrass and mixed grass
prairie; marshes; shorelines of lakes and reservoirs; ponderosa
pine; cottonwood-willow; pinyon-juniper; Gambel oak. Ranges
elevationally to above 6,000 feet (1,830m).

SPECIAL HABITAT REQUIREMENTS - Dry soils of sand, gravel, or loam for burrowing. Uses both permanent and temporary waters.

BREEDING - Eggs laid from (late April) May to August, after heavy rains or during rainy season, approximating 200-250 per large mass or 10-50 per small mass. Tadpoles transform after 36 to 40 days. Needs flooded fields or other temporary pools which are warm and muddy; and, is dependent upon water temperature, oxygen content and competition between tadpoles. Have the fastest development rate among larval amphibians, because larvae emerge from pools as juveniles 12-13 days after hatching.

TERRITORY/HOME RANGE - Unknown.

FOOD HABITS - Consumes insects: flies, ants, beetles, spiders, crickets, grasshoppers, moth larvae and adults.

OTHER -

REFERENCES - Wright and Wright (1949); Langolis (1978); Stebbins (1966).

## WESTERN SPADEFOOT (Scaphiopus hammondi)

#### STATUS -

- DISTRIBUTION/HABITAT Restricted to Southwestern U.S.: found in southeastern and southwestern Colorado, South Dakota. Short-grass prairie; shrub/brush. Elevationally ranges below 6,000 feet (1,830m).
- SPECIAL HABITAT REQUIREMENTS Live in underground burrows dug in soft earth. Also, found in river floodplains, washes and alkali flats.
- BREEDING Eggs are laid mid-February through August after much rainfall in temporary or overflow pools, or in quiet streams.
- TERRITORY/HOME RANGE Territorial; home range unknown.
- FOOD HABITS Consumes mainly ants, but also, beetles, flies, spiders and snails.

OTHER - Nocturnal.

REFERENCES - Wright and Wright (1949); Whitaker, Rubin, Munsee (1977); Whitford (1967).

A019

CAVE SALAMANDER (Eurycea lucifuga)

#### STATUS -

- DISTRIBUTION/HABITAT Restricted to central U.S.: found in southeastern corner of Kansas. Limestone crevices and caves. Cottonwood-willow.
- SPECIAL HABITAT REQUIREMENTS Found mostly in or near caves, but also under stones, rubbish and logs.
- BREEDING Breeding occurs May through October. Eggs number 50-90 and are attached underneath of cave rocks in streams.

TERRITORY/HOME RANGE - Unknown.

FOOD HABITS - Consumes small insects.

OTHER - Adults terrestrial.

REFERENCES - Bishop (1943); Collins (1974).

GROTTO SALAMANDER (Typhlotriton spelaeus)

#### STATUS -

DISTRIBUTION/HABITAT - Restricted to four south-central states:

found in southeastern corner of Kansas. Caves; grottoes.

Cottonwood-willow.

SPECIAL HABITAT REQUIREMENTS - Adults found in caves (and underground passages in limestone areas). Larvae found in mountain springs and streams (in open and in caves).

BREEDING - Eggs are attached to rocks either in or near water.

TERRITORY/HOME RANGE - Unknown.

FOOD HABITS - Consumes small aquatic invertebrates.

OTHER -

<u>REFERENCES</u> - Bishop (1943); Conant (1958); Collins (1974).

A021

LONG-TAILED SALAMANDER (Eurycea longicauda)

#### STATUS -

DISTRIBUTION/HABITAT - Widespread mostly along Eastern coast:
found in southeastern corner of Kansas. Cottonwood-willow.

SPECIAL HABITAT REQUIREMENTS - Adults found in or under rotted logs and stones, near or in small brooks and springs, under rocks along edges of streams, in spaces of shale bank or in caves.

TERRITORY/HOME RANGE - Unknown.

FOOD HABITS - Consumes beetles and their larvae, ants, flies, mites, ticks, centipedes and millipedes.

OTHER - Adults mainly terrestrial, but can swim.

REFERENCES - Bishop (1943); Anderson and Martino (1967); Conant (1958).

MANY-RIBBED SALAMANDER (Eurycea multiplicata)

STATUS -

DISTRIBUTION/HABITAT - Restricted to three south-central states: found (possibly) in Kansas. Cottonwood-willow.

SPECIAL HABITAT REQUIREMENTS - Aquatic. Found in streams and springs beneath logs, stones, debris. Present in caves and in the open. (Sometimes found on land.)

BREEDING -

TERRITORY/HOME RANGE -

FOOD. HABITS -

OTHER -

REFERENCES - Bishop (1943).

A023

SMALL-MOUTHED SALAMANDER (Ambystoma texanum)

STATUS -

<u>DISTRIBUTION/HABITAT</u> - Widespread throughout central U.S.: found in Kansas. Tallgrass prairie.

SPECIAL HABITAT REQUIREMENTS - Found near ponds, under boards, debris, logs in river bottoms and moist places.

BREEDING - Eggs laid in spring and attached to debris and/or sticks under water. Number of eggs may total 700, either single, in strings or in clumps of 3 or 4. Hatching occurs in a few weeks. Larvae change at about 2 months after hatching.

TERRITORY/HOME RANGE - Unknown.

FOOD HABITS - Consumes mainly earthworms, but also small insects.

OTHER -

REFERENCES - Conant (1958).

## SPOTTED SALAMANDER (Ambystoma maculatum)

STATUS -

U.S.: found in eastern Kansas, South Dakota. Cottonwood-willow; tallgrass prairie.

SPECIAL HABITAT REQUIREMENTS - Found in ponds, (slow) streams, transient pools, under boards or stones in moist areas.

BREEDING - Eggs laid in spring and number 125 with a range of 12-250.

Incubation is from 31 to 54 days depending on water temperature. Larvae change within 61 to 110 days in fall. Breeding occurs in temporary pools.

TERRITORY/HOME RANGE - Unknown.

FOOD HABITS -

OTHER -

REFERENCES - Bishop (1943); Conant (1958).

TIGER SALAMANDER (Ambystoma tigrinum)

#### STATUS -

DISTRIBUTION/HABITAT - Tiger salamanders are found over almost the entire U.S. Areas where they are absent are the Great Basin, most of the Pacific coast, Mojave and Colorado deserts, Appalachian region and south Florida. Region 2 is within the distribution range of this species.

Five subspecies are found in northeast South Dakota and the extreme eastern portions of Nebraska and Kansas. The gray subspecies is found in northeast South Dakota. The blotched tiger salamander is found in the remainder of South Dakota, the northern 4/5's of Wyoming and the northern 1/4 of Nebraska. The barred subspecies occurs in the remainder of Nebraska, Kansas and the eastern plains of Colorado. The Utah subspecies is found west of the Colorado plains and in southern Wyoming.

This species occupies moist environments within a wide variety of habitat types. These range from low elevation sagebrush deserts to high elevation spruce-fir forests 11,000 feet (3,305.5 m). Adult salamanders require cover in the form of crevices, decayed logs and rodent burrows. The burrows of ground squirrels, gophers and badgers become particularly important in arid environments.

SPECIAL HABITAT REQUIREMENTS - Ponds, lakes, reservoirs, temporary rain pools and slow-moving streams are required for breeding. These breeding ponds are generally less than 4 acres, with maximum depths ranging from 3 to 20 feet. Sedges and grasses predominate at the edge of these waters. Pond bottoms with gradual slopes producing gradual temperature gradients are preferred. The most desirable water temperatures range from 55° to 77°F. Temperatures above 97.5°F are lethal.

BREEDING - When tiger salamanders emerge in winter, they migrate to bodies of water in preparation for breeding. Timing and length of breeding is triggered by the interaction of temperature and rainfall. This is normally between March and June at high elevations and mid-December through February at lower altitudes. Between 25-100 eggs are deposited on submerged rocks, twigs, and stems of aquatic plants. They are normally found within 6 inches of the bottom and in water depths in excess of 12 inches. Rarely are eggs found near shore in water less than 8 inches deep. The eggs hatch in 2 to 3 weeks. Normally larvae complete metamorphosis within 90 days and overwinter as adults. At high elevations, however, metamorphosis may take 2 to 3 years. In extremely cold situations, metamorphosis may never occur.

- TERRITORY/HOME RANGE Not territorial. Home range is assumed to be about one acre, since adults can be found several hundred yards from breeding sites.
- FOOD HABITS The tiger salamander is opportunistic and preys upon any animal small enough for it to swallow. Insects and mollusks predominate in the diet.
- OTHER Optimum breeding waters are void of fish. Fish can eliminate breeding populations of salamanders.
- REFERENCES Secton and Bizer (1978), Stebbins (1951), Tanner, Fisher and Willis (1971).

CANYON TREEFROG (Hyla arenicolor)

#### STATUS -

- <u>DISTRIBUTION/HABITAT</u> Restricted to four Western states (Colorado, Arizona, Texas, Utah): found in western Colorado. Deciduous Forests; pinyon-juniper. Elevational range to about 9,000 feet (2,745m).
- SPECIAL HABITAT REQUIREMENTS Found in rocky, boulder-strewn canyons and their permanent and semi-permanent streams, mountain streams, i.e., streams with rocky pools and a substrate of granite, sandstone or mixture. Hides in niches along stream bank.

BREEDING - Eggs laid from March to July. Tadpoles change after 40 to 75 days from June to August.

TERRITORY/HOME RANGE - Unknown.

FOOD HABITS - Consumes insects.

OTHER - May climb trees.

REFERENCES - Wright and Wright (1949); Bernard and Brown (1977); Stebbins (1966).

A027

COPE'S GRAY TREEFROG (Hyla chrysoscelis)

#### STATUS -

- DISTRIBUTION/HABITAT Eastern Kansas and South Dakota. Cottonwoodwillow; tallgrass prairie; trees, low shrubs and edge of woodlands.
- SPECIAL HABITAT REQUIREMENTS Found in forest areas along creeks and rivers.
- BREEDING Eggs laid from mid-March to July and deposited in muddy pools or weedy vegetation. Number of eggs may be 1,800 (in masses of 30-40 eggs). Hatching occurs in 4 to 5 days. Tadpoles change within 2 months.

TERRITORY/HOME RANGE - Unknown.

FOOD HABITS - Consumes arboreal insects.

OTHER - Arboreal.

REFERENCES - Wright and Wright (1949); Collins (1974).

GRAY TREEFROG (Hyla versicolor)

#### STATUS -

U.S.: found in eastern Kansas and southeastern Nebraska.

SPECIAL HABITAT REQUIREMENTS - Trees, lichen-covered stone fences, decaying (fruit) trees, and trees or shrubs in shallow open water.

BREEDING - Eggs laid from April to August in quiet and shallow water on surface of pools or attached to vegetation in masses of 30-40. Tadpoles change after 45 to 65 days from June to August.

TERRITORY/HOME RANGE - Unknown.

FOOD HABITS -

OTHER -

REFERENCES - Wright and Wright (1949); Conant (1958); Collins (1974).

A029 -

AMERICAN TOAD (Bufo americanus)

#### STATUS -

DISTRIBUTION/HABITAT - Eastern Kansas, Nebraska, South Dakota.

Cottonwood-willow.

SPECIAL HABITAT REQUIREMENTS - Found under flat stones, boards, logs, wood piles and in rocky areas of open woodland.

BREEDING - Eggs laid in streams or ponds from April to July numbering 4,000-8,000 per mass. Tadpoles change from June to August within 50 to 65 days.

TERRITORY/HOME RANGE - Territory unknown; home range averages (at least) 0.16 acres.

FOOD HABITS - Consumes crickets, beetles, spiders, ants, grass-hoppers and leaf-hoppers.

OTHER - Mostly nocturnal.

REFERENCES - Wright and Wright (1949); Collins (1974).

## CANADIAN TOAD (Bufo hemiophrys)

#### STATUS -

- DISTRIBUTION/HABITAT Mainly in Canada, North Dakota and Montana; found in eastern South Dakota and in isolated area in south-eastern Wyoming. Cottonwood-willow; mid and tallgrass prairie.
- SPECIAL HABITAT REQUIREMENTS Aquatic. Found in lakes, ponds, marshes, roadside ditches, stream valleys and within dense vegetation cover (on land).
- BREEDING Breeding season extends from March to September. Eggs deposited in the shallow margins of lakes and/or ponds mainly during May, June and July. Needs to breed in quiet waters.

TERRITORY/HOME RANGE - Unknown.

FOOD HABITS - Consumes insects, mainly beetles and ants.

OTHER - Mainly diurnal but may be nocturnal on warm nights.

REFERENCES - Wright and Wright (1949); Bernard and Brown (1977); Stebbins (1966).

A031

EASTERN NARROW-MOUTH TOAD (Gastrophryne carolinensis)

#### STATUS -

- DISTRIBUTION/HABITAT Widespread through southeast and central U.S.: eastern Kansas.
- SPECIAL HABITAT REQUIREMENTS Found under decayed logs, rocks, boards and litter in moist places. Found also in streams.
- BREEDING Eggs laid from May to September during and after rains on the surface of puddles, ponds or ditches averaging 10-90 per mass, or larger masses of 850. Breeding is influenced by temporary pools and intermittent streams.

TERRITORY/HOME RANGE - Unknown.

FOOD HABITS - Consumes insects.

OTHER - Nocturnal and subterranean.

REFERENCES - Wright and Wright (1949).

GREAT PLAINS TOAD (Bufo cognatus)

#### STATUS -

- <u>DISTRIBUTION/HABITAT</u> Widespread throughout western U.S., i.e., from Canada to Texas and on to southern Nevada. Found in Colorado, Wyoming, Nebraska, South Dakota, Kansas. Marshes; plains; sagebrush; grasslands. Elevational range 1,000-5,000 feet (305-1,525m).
- SPECIAL HABITAT REQUIREMENTS Aquatic. Found along flood plains of streams or in overflow bottomlands.
- BREEDING Eggs laid from April to September (depending on rainfall) approximating 20,000. Metamorphosis takes less than 2 weeks.

  Needs rain pools, non-permanent and clear, still water, such as stream floodplains, for breeding.

#### TERRITORY/HOME RANGE - Unknown.

- FOOD HABITS Consumes insects, e.g., beetles, ants, spiders, centipedes, millipedes; also, earthworms and scorpions.
- OTHER In dry weather burrows underground. Mainly nocturnal but may be diurnal during breeding season.
- REFERENCES Wright and Wright (1949); Langiois (1978); Bernard and Brown (1977).

A033

GREEN TOAD (Bufo debilis)

#### STATUS -

- DISTRIBUTION/HABITAT Limited from southern Kansas to northeastern Mexico: found in southeastern Colorado, southwestern Kansas.

  Plains (midgrass); foothills. Elevational range to (about) 4,000 feet (1,220m).
- SPECIAL HABITAT REQUIREMENTS Found in grassy lowlands or valleys, but not on steep slopes or rocky, barren areas.
- BREEDING Eggs laid from the end of March to the middle of June in temporary or shallow rain pools, or impermanent streams. Eggs are deposited on trees, shrubs or grass around pools.

TERRITORY/HOME RANGE - Unknown.

FOOD HABITS - Consumes insects.

OTHER - Due to temporary breeding sites they develop quickly.

Active only briefly after rainy periods. Nocturnal.

REFERENCES - Wright and Wright (1949); Stebbins (1966).

## RED-SPOTTED TOAD (Bufo punctatus)

#### STATUS -

- DISTRIBUTION/HABITAT Widespread throughout southwestern U.S.: found in Colorado, Kansas. Riparian; pinyon-juniper; midgrass. Elevational range to 6,500 feet (1982.5m).
- SPECIAL HABITAT REQUIREMENTS Found near less permanent water sources in rocky bottoms, such as springs and intermittent streams. Uses rock crevices for shelter.
- BREEDING Eggs laid April through September in rock bottom pools of intermittent, semi-permanent streams and springs with tadpole development after 40 to 60 days.

TERRITORY/HOME RANGE - Unknown.

FOOD HABITS - Consumes insects.

- OTHER Needs presence of permanent or intermittent water sources (streams, springs, seeps) in determining whether or not species is present. Mostly nocturnal, but diurnal when breeding.
- REFERENCES Wright and Wright (1949); Langolis (1978); Bernard and Brown (1977).

WESTERN TOAD (Bufo boreas)

STATUS - Nongame, native.

- DISTRIBUTION/HABITAT Southern Alaska to northern Baja California;
  Rocky Mountains to Pacific Coast. Absent from most of arid
  Southwest. Common in preferred habitat, mountain meadow and
  riparian deciduous at lower elevations. Elevation range
  1,000-10,000 feet (305-3,050m).
- SPECIAL HABITAT REQUIREMENTS Open water of some type for breeding.

  Buries itself in loose soil or seeks shelter in burrows of gophers, ground squirrels, and other animals.
- BREEDING Eggs laid in open water from February to July. Mean clutch size 10,000 with a range of 100-15,000.
- TERRITORY/HOME RANGE Territory limited to vicinity of calling male.
- FOOD HABITS Waits for prey (moving insects) on surface of ground or ir shallow burrows.
- OTHER Common garden toad of the west. Tends to walk rather than hop.

REFERENCES - Stebbins (1966); Wyoming G&F Dept. (1974).

A036

WESTERN NARROW-MOUTH TOAD (Gastrophryne olivacea)

#### STATUS -

- DISTRIBUTION/HABITAT Widespread in (extreme) southwestern U.S.:

  from Nebraska to Texas; found in Colorado, Kansas. Cottonwoodwillow; mid and tallgrass; pinyon-juniper.
- SPECIAL HABITAT REQUIREMENTS Found under logs or dead tree stumps.

  Prefers areas with sand and gravel type soils. Also found in rotted termite-infested stumps and under flat rocks near ant nests.
- BREEDING Eggs laid from March to September in ponds or rainpools along roads after much rain. An egg mass may consist of 645 eggs, and tadpoles may change after 30 to 50 days.

TERRITORY/HOME RANGE - Unknown.

FOOD HABITS - Consumes insects, mainly ants.

OTHER - Nocturnal.

REFERENCES - Wright and Wright (1949); Stebbins (1966).

WOODHOUSE'S TOAD (Bufo woodhousei)

#### STATUS -

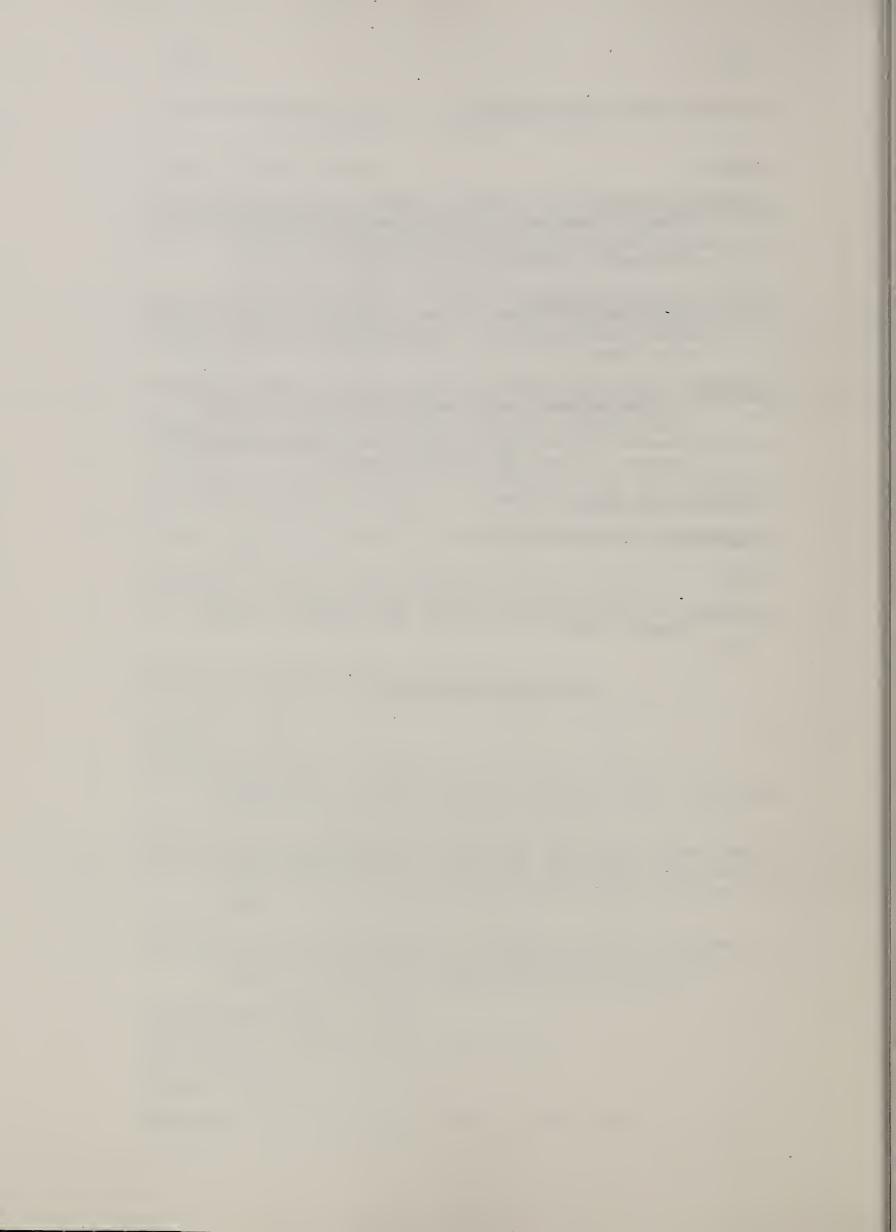
- DISTRIBUTION/HABITAT Widespread throughout U.S.: found in Colorado, South Dakota, Kansas, Nebraska, Wyoming. Deciduous, pinyon-juniper; shrub/brush; gravel beds; grassland. Elevational range to 8,500 feet (2,592.5m).
- SPECIAL HABITAT REQUIREMENTS Aquatic. Prefers sandy areas. Found along rivers from plains to mountain canyons, marshes, river bottoms and floodplains. Needs permanent or nearly permanent water sites.
- BREEDING Eggs laid from March to July averaging 26,000 and found in slow, shallow creeks, canyon pools, flooded fields, (shallow) muddy water or river flood plains. Larvae metamorphose in 35 to 45 days if temperature and food supply are suitable. Terrestrial when not breeding.

TERRITORY/HOME RANGE - Unknown.

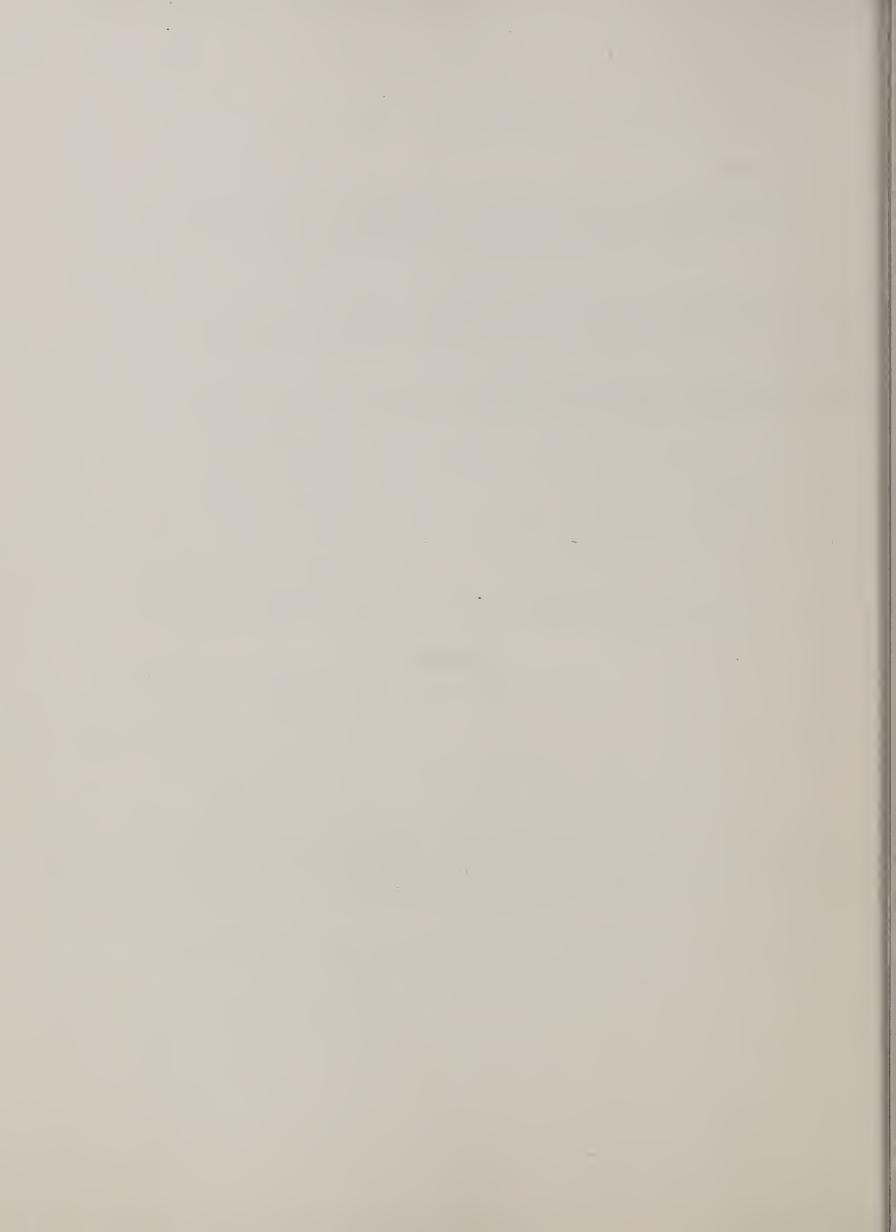
FOOD HABITS - Consumes insects.

OTHER -

REFERENCES - Wright and Wright (1949); Wyo. G&F Dept. (1974); Langolis (1978).



REPTILES



RUBBER BOA (Charina bottae)

#### STATUS -

- DISTRIBUTION/HABITAT Widespread throughout north-central Wyoming and Northwestern U.S. Found in forest meadows, near streams, in the pole of mixed conifers and ponderosa pine, and in moist soils. Elevational range from 5,000-9,000 feet (1,525-2,750m).
- SPECIAL HABITAT REQUIREMENTS Preferred habitat is a rocky stream with sandy and/or loamy banks within a coniferous forest with meadows and rotting logs. Takes shelter under rotted bank or logs and rocks.
- BREEDING Mating occurs April through June. Young born in early fall and average 4, ranging from 1-6.
- TERRITORY/HOME RANGE Not territorial. Home range unknown.
- FOOD HABITS Consumes mice, young birds, forest and/or meadow lizards and snakes.
- OTHER Is subterraneous; is a swimmer and arboreal.
- REFERENCES USDA For Serv Calif Region (1978); Wyo. G&F Dept. (1974); Stebbins (1966).

# COACHWHIP (Masticophis flagellum)

### STATUS -

- DISTRIBUTION/HABITAT Widespread from coast to coast throughout southern U.S.: found in southeastern Colorado, west, southwest and central Kansas, southern Nebraska. Pinyon-juniper; shortgrass; riparian; sagebrush; mid and tallgrass; open, sandy areas. Ranges to 6,000 feet (1,830m).
- SPECIAL HABITAT REQUIREMENTS Avoids dense vegetation; prefers rodent burrows, rocky ledges and rocky areas, or tree and shrub branches for shelter.
- BREEDING Mating occurs in April and May. Eggs are laid from June to mid-July and range from 12-24. Hatchlings appear in fall.

TERRITORY/HOME RANGE - Unknown.

FOOD HABITS - Consumes small rodents, other snakes, birds, eggs, lizards, carrion, insects and young turtles.

OTHER - Frequently arboreal.

REFERENCES - Langolis (1978); Bernard and Brown (1977); Stebbins (1966).

R003

FLORIDA COOTER (Chrysemys floridana)

#### STATUS -

- DISTRIBUTION/HABITAT Widespread throughout Atlantic coast, Texas and New Mexico: found in southeastern Kansas. Cottonwood-willow.
- SPECIAL HABITAT REQUIREMENTS Aquatic. Found in and at mouths of rivers, along ditches, ponds, lakes, marshes and other permanent waters.
- BREEDING Nesting is in June; 12-29 eggs are laid in soft earth.

  Overwintering of eggs may occur.

TERRITORY/HOME RANGE - Unknown.

FOOD HABITS - Consumes aquatic vegetation.

OTHER -

REFERENCES - Stebbins (1966); Collins (1974).

# COPPERHEAD (Agkistrodon contortrix)

### STATUS -

- DISTRIBUTION/HABITAT Widespread throughout east to central U.S.:
  found in eastern Nebraska and eastern Kansas. Marshland;
  cottonwood-willow; rocky areas near dense forests.
- SPECIAL HABITAT REQUIREMENTS Rock clefts (of old quarries) near streams and ponds.
- BREEDING Mating occurs April through August. Young born every other year. Number of young range from 6-9 (or 1-14) during August, September and October.
- TERRITORY/HOME RANGE Territory unknown; home range extends from 8 to 25 acres.
- FOOD HABITS Consumes mice, rats, chipmunks, other snakes, birds and frogs.

## OTHER -

REFERENCES - Ditmars (1907); Collins (1974).

R005

COAST HORNED LIZARD (Phrynosoma coronatum)

## STATUS -

- DISTRIBUTION/HABITAT Widespread along West Coast: not usually found in Region 2. Valleys, foothills. Ranges to (about) 6,000 feet (1,830m).
- SPECIAL HABITAT REQUIREMENTS For shelter burrows into loose sand, or uses bushes, burrows of other animals or underneath rocks.
- BREEDING Eggs laid from April to June with numbers ranging from 6-16 and averaging 11. Needs well-aerated soil for breeding.
- TERRITORY/HOME RANGE Territoriality not determined; home range possibly small.
- FOOD HABITS Consumes mealworms, ants, grasshoppers and crickets.

#### OTHER -

REFERENCES - USDA For Serv - Calif Region (1978); Bernard and Brown (1977); Stebbins (1966).

# COLLARED LIZARD (Crotaphytus collaris)

- STATUS Protected in Colorado.
- DISTRIBUTION/HABITAT Widespread throughout southwestern U.S.:
  found in Colorado and Kansas. Pinyon-juniper; conifer
  forests; mid and tallgrass; gravel beds.
- SPECIAL HABITAT REQUIREMENTS Found near rock piles (for shelter); in canyons, gullies; on boulders, mountain slopes where vegetation is slight. Needs open areas for running. For basking and lookouts, they need boulders.
- BREEDING Eggs laid in June and July (early August) and number 4-24. They are laid under rocks or in loose sand.
- TERRITORY/HOME RANGE Territorial; definite home range of 1.08 acres.
- FOOD HABITS Consumes other lizards (Sceloporus, Phrynosoma),

  leaves, red clover blossoms, dandelions, young snakes; and
  in captivity grasshoppers, crickets and mealworms. Once they
  spot their prey they run and grab it.

#### OTHER -

REFERENCES - Ditmars (1907); Bernard and Brown (1977); Stebbins (1954).

# EASTERN FENCE LIZARD (Sceloporus undulatus)

#### STATUS -

- DISTRIBUTION/HABITAT Widespread throughout U.S.: found in Colorado, Wyoming, Kansas, South Dakota, Nebraska. Short, mid, tall and montane grasslands; riparian; sandy areas; coniferous forests. Ranges up to 7,000 feet (2,130m) and rarely above 9,000 feet (2,875m).
- SPECIAL HABITAT REQUIREMENTS Found in woodpiles, under rocks or logs, in old buildings, bushes, trees or rodent burrows.
- BREEDING Eggs laid May through August and buried in loose soil.

  Number of eggs per clutch is 4-17 with 2-3 clutches per season.
- TERRITORY/HOME RANGE Territoriality unknown (except in Oklahoma); definite home range of which trees are included and measures about .01 acres.
- FOOD HABITS Consumes insects: spiders, millipedes, ants and snails.
- OTHER Although mainly terrestrial, will climb trees.
- REFERENCES Bernard and Brown (1977); Arnett (1974); Stebbins (1966).

R008

# EASTERN GLASS LIZARD (Ophisaurus ventralis)

### STATUS -

DISTRIBUTION/HABITAT - Limited to southeastern coast of U.S. from North Carolina to Louisiana: not usually found in Region 2.

## SPECIAL HABITAT REQUIREMENTS -

BREEDING - Eggs laid from June to early August ranging from 8-17 with an incubation period of 56 to 61 days. Incubation is done under cover.

#### TERRITORY/HOME RANGE - Unknown.

FOOD HABITS - Consumes earthworms, insect larvae, slugs, bird eggs, beetles, small snakes and lizards.

OTHER - Burrower. Possibly nocturnal.

REFERENCES - Smith (1946); Ditmars (1907).

LESSER EARLESS LIZARD (Holbrookia maculata)

## STATUS -

- DISTRIBUTION/HABITAT Widespread from southern South Dakota to

  Mexico: found in eastern Colorado, southeastern Wyoming,

  Kansas, Nebraska, southern South Dakota. Shortgrass prairie.

  Elevational range to 5,500 feet (1,677.5m).
- SPECIAL HABITAT REQUIREMENTS Found in dry, rocky areas not under rocks or objects, rather under bushes in areas with little grass. Uses scattered rocks and rodent burrows for shelter. Also, found near yucca and on sandbars of stream beds. Prefers open, bare areas and sandy areas on plains.
- BREEDING Eggs laid May through July and range in number from 2-12.

  Eggs hatch late summer through early fall.
- TERRITORY/HOME RANGE Territorial (in Kansas); definite home range of about .09 acres.

FOOD HABITS - Consumes grasshoppers, spiders, other insects.

OTHER -

REFERENCES - Wyo. G&F Dept. (1974); Bernard and Brown (1977); Werth (1972).

R010

LONG-NOSED LEOPARD LIZARD (Crotaphytus wislizeni)

#### STATUS -

- <u>DISTRIBUTION/HABITAT</u> Widespread in western U.S.: found in western and peripheral Colorado. Pinyon-juniper; sagebrush.
- SPECIAL HABITAT REQUIREMENTS Found in flat desert areas where scattered and/or clumped bushes are present. Avoids dense grass and bush which may interfere with running. Prefers soils that are loose and fine. Can be found on hard alkali.
- BREEDING Eggs laid July through September with numbers of 2-4 per litter and a hatching period of at least 35 days.

TERRI TORY/HOME RANGE - Unknown.

FOOD HABITS - Highly cannibalistic. Consumes insects and other lizards. Waits for insects in shadow of a bush.

## OTHER -

REFERENCES - Smith (1946); Bernard and Brown (1977); Stebbins (1966).

MESQUITE LIZARD (Sceloporus grammicus)

STATUS -

DISTRIBUTION/HABITAT - Limited to southern Midwest U.S. and Mexico.

Not usually found in Region 2. Areas with small scrubby trees, for example, pinyon-juniper, mountain shrub; sagebrush; mesquite.

SPECIAL HABITAT REQUIREMENTS -

BREEDING - Young born in early April. Mating is in October.

TERRITORY/HOME RANGE -

FOOD HABITS -

OTHER -

REFERENCES - Smith (1946); Conant (1958).

R012

SHORT-HORNED LIZARD (Phrynosoma douglasii)

STATUS - Protected in Colorado and Nebraska.

DISTRIBUTION/HABITAT - Widespread throughout most of western U.S.:
found in Kansas, Nebraska, Wyoming, Colorado, South Dakota.
Shortgrass prairie, sagebrush; pinyon-juniper; pine-spruce;
spruce-fir; plains areas where rocks and sand are present.
Ranges to 8,000 feet (2,440m).

SPECIAL HABITAT REQUIREMENTS - Prefers sandy, stony or firm ground.

BREEDING - Mating occurs from May to June. Eggs hatch from late

June to August (early September) with numbers of 5-36 per

littler (usually 14-17).

TERRITORY/HOME RANGE - Unknown.

FOOD HABITS - Consumes insects, mainly ants.

OTHER - Ground dwelling; tolerates cold well compared to other horned lizards.

REFERENCES - Langolis (1978); Bernard and Brown (1977); Stebbins (1966).

SIDE-BLOTCHED LIZARD (Uta stansburiana)

## STATUS -

- DISTRIBUTION/HABITAT Widespread along Pacific Coast: found in western Colorado, southwestern Wyoming. Riparian; deciduous; pinyon-juniper; gravel bed; rocky hillsides; grasslands. Elevational range to below 5,000 feet (1,525m).
- SPECIAL HABITAT REQUIREMENTS Found on very coarse and fine-grained soil and near bushes, trees or grasses. Found, also, under rocks, shrubs, in rodent burrows or wood rat nests.
- BREEDING Eggs laid March through June peaking in May and ranging from 2-5 with an average of 4. Needs well aerated soil for breeding.
- TERRITORY/HOME RANGE Possibly territorial near males only; possible home range, at most, 150 feet (45m).
- FOOD HABITS Consumes mites, grasshoppers, spiders, scorpions, moths, ticks, sowbugs, sometimes ants and beet leaf hoppers; also, Russian thistle.

OTHER - Ground dweller.

REFERENCES - Smith (1946); Bernard and Brown (1977); Stebbins (1966).

# SLENDER GLASS LIZARD (Ophisaurus attenuatus)

### STATUS -

<u>DISTRIBUTION/HABITAT</u> - Widespread throughout southeastern coast and central U. S.: found in east and central Kansas and southeastern Nebraska. Dry, open grasslands; dry, open woods. Cottonwood-willow.

SPECIAL HABITAT REQUIREMENTS - Found near streams and ponds.

## BREEDING -

TERRITORY/HOME RANGE - Not territorial; home range of about 0.5 acres.

FOOD HABITS - Consumes insects (spiders), snails and reptile eggs.

OTHER - Burrows only during hibernating season.

REFERENCES - Collins (1974).

# TREE LIZARD (Urosaurus ornatus)

## STATUS -

DISTRIBUTION/HABITAT - Mainly in southwestern U.S.: found in Colorado, southwestern Wyoming. Pinyon-juniper; riparian; shrub/brush; deciduous; riparian-coniferous. Ranges to 9,000 feet (2,745m).

SPECIAL HABITAT REQUIREMENTS - Found near trees and cliffs, or on large rocks and boulders mostly restricted to large rock faces.

BREEDING - Mating probably occurs in late April. Eggs number 5-12 and average 8.

TERRITORY/HOME RANGE - Unknown.

FOOD HABITS - Consumes spiders, ants, beetles, termites, leaf hoppers.

OTHER - Climbing lizard and may be limited to arboreal habitats.

REFERENCES - Wyo. G&F Dept. (1974); Langolis (1978); Stebbins (1954).

R016

MASSASAUGA (Sistrurus catenatus)

STATUS - Protected in Colorado.

DISTRIBUTION/HABITAT - Widespread throughout north-central and midwest U.S. from Canada to Texas: found in central, south and eastern Kansas, southeastern Colorado, southeastern corner Nebraska. Short, mid, and tallgrass prairie; cottonwood-willow. Elevational range to 5,000 feet (1,525m).

SPECIAL HABITAT REQUIREMENTS - Found in rock outcrops, rodent burrows, dry open woodland and bogs.

BREEDING - 6-10 young born from July to August.

TERRITORY/HOME RANGE - Unknown.

FOOD HABITS - Consumes young birds, frogs, mice, lizards and snakes.

OTHER -

REFERENCES - Ditmars (1907); Langolis (1978); Stebbins (1966).

NORTH AMERICAN RACER (Coluber constrictor)

## STATUS -

- DISTRIBUTION/HABITAT Widespread throughout U.S.: found in Kansas,

  Nebraska, eastern Colorado, eastern and north-eentral Wyoming,
  western South Dakota. Short and tallgrass prairies; mountain
  meadows; weed fields; open woodlands; (mainly grassland that
  may extend into forested areas.) Cottonwood-willow. Ranges
  elevationally to 6,700 feet (2,043.5m).
- SPECIAL HABITAT REQUIREMENTS Prefers rock piles and outcroppings.
- BREEDING Mating occurs in April and May (or May to June); eggs laid in early summer in rotten wood, soil, mammal burrows numbering 12-24 and averaging 19. Needs loose, aerated soil for breeding.
- TERRITORY/HOME RANGE Not territorial but may have an extensive home range averaging .38 hectares.
- FOOD HABITS Consumes young birds, mice, lizards, insects, toads, frogs, snakes, small turtles (which it hunts from grassy banks).
- OTHER Feeds on ground organisms; sometimes climbs bushes and trees.
- REFERENCES USDA For Serv Calif Region (1974); Brown and Parker (1976); Stebbins (1966).

# SIX-LINED RACERUNNER (Cnemidophorus sexlineatus)

## STATUS -

- U.S.: found in eastern Colorado, Kansas, Nebraska, southern South Dakota, southeastern Wyoming. Open and short grasslands; hilly and rocky areas; pinyon-juniper; gravel beds; dry areas; cottonwood-willow.
- SPECIAL HABITAT REQUIREMENTS Uses boards, holes, rails, stones for cover. Found in lowlands and floodplains and river banks.

  Prefers sandy, porous soils, and more specifically sparse slopes, eroded gully banks, dry creek beds, field borders and hilltops.
- BREEDING Eggs are laid from early June to mid-July and range from 4-6. Hatchlings appear in early August. Burrows, e.g., mole tunnels, are used for breeding.
- TERRITORY/HOME RANGE Territorial behavior not observed; definite home range (.03 acres).
- FOOD HABITS Consumes grasshoppers, spiders, ants, flies, small moths, moth and butterfly larvae, snails and lizards.

OTHER - Burrower and strictly terrestrial.

REFERENCES - Smith (1946); Werth (1972); Stebbins (1966).

# PRAIRIE RATTLER (Crotalus viridis)

- STATUS Fairly common in northwest and southwest corners, eastern plains and foothills of Colorado. Common all over Region 2.
- DISTRIBUTION/HABITAT Widely distributed from south-central British Columbia, southern Alberta and southwest Saskatchewan, south through western States to Texas. Within Region 2 found in all five States. Inhabits rocky canyons; mountain shrub; pinyon-juniper; ponderosa pine.
- SPECIAL HABITAT REQUIREMENTS Prefers open prairie (with many small burrows of prairie dogs). In winter found in rock ledges and rock outcrops.
- BREEDING Mating occurs in early spring or fall. Litters born in spring, summer or fall (depending on mating) numbering ll and are produced every other year.

TERRITORY/HOME RANGE - Unknown.

FOOD HABITS - Consumes mice, rats, gophers, young prairie dogs.

OTHER -

REFERENCES - Collins (1974); Conant (1958).

TIMBER RATTLER (Crotalus horridus)

STATUS -

<u>U.S.:</u> found in eastern Kansas, Nebraska, South Dakota. Cottonwood-willow; foothills.

SPECIAL HABITAT REQUIREMENTS - Prefers mountain ledges and rocky areas around heavily vegetated areas; and prefers warm and sunny southern slopes.

BREEDING - Young born in August, September, or October ranging in number from 7-12.

TERRITORY/HOME RANGE - Unknown.

FOOD HABITS - Consumes squirrels, mice, rats, birds, small rabbits and bats.

OTHER -

REFERENCES - Ditmars (1907); Wright and Wright (1957).

R021

BROAD-HEADED SKINK (<u>Eumeces</u> <u>laticeps</u>)

STATUS - Threatened (in Kansas).

<u>DISTRIBUTION/HABITAT</u> - Widespread throughout eastern and central U.S.: found in eastern Kansas. Forest areas.

SPECIAL HABITAT REQUIREMENTS - Prefers moist forest areas and remains mostly in trees rather than on ground. Also, in dead (standing) trees using woodpecker holes.

BREEDING - Eggs range from 6-10 in number.

TERRITORY/HOME RANGE - Unknown.

FOOD HABITS - Consumes wasp larvae and pupae.

OTHER -

REFERENCES - Smith (1946).

# COAL SKINK (Eumeces anthracinus)

## STATUS -

- <u>DISTRIBUTION/HABITAT</u> Limited to areas in eastern and central U.S.: found in eastern Kansas. Cottonwood-willow.
- SPECIAL HABITAT REQUIREMENTS Found under loose stones, decayed logs, brush and leaf piles in forested hillsides. Prefer moist areas.
- BREEDING Mating and nesting facts are unknown. Approximately 8 or 9 eggs are laid in June with hatching occurring within 4 to 5 weeks sometime in July.

TERRITORY/HOME RANGE - Unknown.

FOOD HABITS - Consumes various small insects and insect larvae.

OTHER -

REFERENCES - Smith (1946); Collins (1974).

R023

FIVE-LINED SKINK (<u>Eumeces fasciatus</u>)

#### STATUS -

- SPECIAL HABITAT REQUIREMENTS Forested areas preferring moist environments such as underside of stones, logs, leaf piles, or inside decayed logs. Areas are rocky, open and well-drained cut-over upland forests.
- BREEDING Number of eggs laid may be from 2-18, or more or less depending on size of female.
- TERRITORY/HOME RANGE Territoriality unknown; establish home ranges.
- FOOD HABITS Consumes spiders, earthworms, insect larvae, sometimes young lizards and mice.

OTHER - A ground dweller; rarely arboreal.

REFERENCES - Smith (1946); Fitch (1954).

GREAT PLAINS SKINK (Eumeces obsoletus)

#### STATUS -

- DISTRIBUTION/HABITAT Limited to western U.S. from Nebraska to Texas and Arizona to Kansas: found in extreme southeastern Wyoming, eastern Colorado, Kansas, Nebraska. Grasslands; riparian; cottonwood-willow. Elevational range to 7,000 feet (2,135m).
- SPECIAL HABITAT REQUIREMENTS Found under loose, limestone rocks, rocky crevices, logs, bark, or in bushes. Prefers rock outcrops near intermittent or permanent streams near shrubs; also, semi-arid canyons and mountains.
- BREEDING Mating is from mid-April to mid-June. Eggs laid from mid-June to mid-July numbering 7-15. Eggs hatch in late August. Makes nests under sunken rocks. Broods eggs.
- TERRITORY/HOME RANGE Territoriality unknown; have a definite home range.
- FOOD HABITS Consumes insect eggs and larvae, spiders, (sometimes) small lizards and snails.

### OTHER -

REFERENCES - Langolis (1978); Bernard and Brown (1977); Stebbins (1966).

R025

GROUND SKINK (Scincella lateralis)

# STATUS -

<u>DISTRIBUTION/HABITAT</u> - Widespread throughout eastern and central U.S.: found in southeastern Kansas. Cottonwood-willow; midgrass.

SPECIAL HABITAT REQUIREMENTS - Found in leaf litter of forest.

BREEDING - Mating occurs March through April. Eggs laid late April to July numbering 2-7. Incubation, at times, may be 22 days. Eggs are laid either under leaf litter or in stumps of decayed logs.

TERRITORY/HOME RANGE - Unknown.

FOOD HABITS Consumes insects (spiders) and earthworms.

OTHER -

REFERENCES - Collins (1974).

# MANY-LINED SKINK (Eumeces multivirgatus)

- STATUS The species is limited in range and its abundance is undetermined.
- DISTRIBUTION/HABITAT Their distribution includes the central and western portions of southern Colorado and extending through most of New Mexico, Arizona and southeast Utah. They are found from 3,000 to around 8,200 feet (915-2,501m) elevation in subalpine willow thickets where there is sand or loose soil, oakbrush, ponderosa pine and semi-desert grasslands of the pinyon-juniper zone.
- SPECIAL HABITAT REQUIREMENTS They have no special requirements.

  However, there is some evidence that they are more abundant where water or moist subsoil exists.
- BREEDING Eggs are laid in chambers, in loose aerated soil, from June to July, with peak activity around July 1, One clutch is produced per year with three to five eggs per clutch.
- TERRITORY/HOME RANGE Not thought to be territorial. Home range is unknown.
- FOOD HABITS Searches for insects and other small animals under leaves and other surface objects.
- OTHER Seem to do well near human habitation (vacant lots, city dumps, backyards, etc.).
- REFERENCES Stebbins (1954); Stebbins (1966); Smith, Maslin and Brown (1965).

PRAIRIE SKINK (Eumeces septentrionalis)

STATUS - Threatened (in South Dakota).

U.S.: found in eastern and central Kansas, Nebraska, South Dakota. Midgrass.

Found under flat rocks and/or loose stones, leaves, trash, logs, boards. Also, found along rivers, lakes, ponds and marshes.

BREEDING - Young born July-August (possibly September) numbering 12-20 (or 3-24).

TERRITORY/HOME RANGE - Territoriality unknown; definite home range.

FOOD HABITS - Consumes slugs, earthworms, beetle grubs, beetles, small salamanders.

OTHER - Mainly nocturnal.

REFERENCES - Ditmars (1907); Wright (1957); Stickel and Cope (1947).

R028

BLACKNECKED GARTERSNAKE (Thamnopsis cyrtopsis)

## STATUS -

DISTRIBUTION/HABITAT - Limited to extreme southwestern U.S.: found in parts of southern and eastern Colorado, Nebraska, South Dakota, Wyoming. Cottonwood-willow; grassland; coniferous forests. Elevational range to 8,000 feet (2,440m).

SPECIAL HABITAT REQUIREMENTS - Found in large semiarid canyons where permanent or semi-permanent water is available; also, near ponds and lakes, but in wet weather may be far from water.

#### BREEDING -

TERRITORY/HOME RANGE - Unknown.

<u>FOOD HABITS</u> - Consumes tadpoles, toads and frogs.

#### OTHER -

REFERENCES - Stebbins (1966); Stebbins (1954).

BROWN SNAKE (Storeria dekayi)

STATUS - Threatened species in South Dakota. Abundant in eastern Kansas.

<u>DISTRIBUTION/HABITAT</u> - Genus ranges from Canada to Honduras with several species and sub-species being present through the eastern U.S. Forest system lands in the Region are on the periphery of its range. It is found in most sites in cottonwood-willow in South Dakota, Nebraska and Kansas.

SPECIAL HABITAT REQUIREMENTS - Habitat similar to garter snakes, including marshes, moist woods and hillsides. Usually found under debris.

BREEDING - Mating occurs in both spring and fall. Three to twenty-four young born July to September.

TERRITORY/HOME RANGE - Unknown.

FOOD HABITS - Consumes slugs, earthworms and soft bodied insects.

OTHER - Generally nocturnal.

REFERENCES - Conant (1958), Collins (1974).

CHECKERED GARTERSNAKE (Thamnophis marcianus)

## STATUS -

U.S. from California to Texas and Kansas to Texas: found in southwestern Kansas. Grasslands near streams or desert areas near ponds or rivers. Cottonwood-willow. Elevational range to 5,000 feet (1,525m).

SPECIAL HABITAT REQUIREMENTS - Uses rodent burrows for shelter.

BREEDING - Young born from July to August.

TERRITORY/HOME RANGE - Unknown.

FOOD HABITS - Consumes invertebrates, fish, toads, lizards, tadpoles, frogs. Is a nocturnal feeder in arid parts of its range.

OTHER - Nocturnal during hot weather when not near water.

REFERENCES - Wright and Wright (1957); Stebbins (1966).

RO31

COMMON GARTERSNAKE (Thamnophis sirtalis)

## STATUS -

- DISTRIBUTION/HABITAT Widespread throughout U.S.: northeastern and south-central Colorado, Kansas, South Dakota, Wyoming. Riparian-deciduous sites; prairie; cottonwood-willow. Elevational range to 8,000 (2,440m).
- SPECIAL HABITAT REQUIREMENTS Found in foothill streams and ponds, marshes, rocky slopes, meadows, wooded areas, water courses, roadside ditches. Stays near water.
- BREEDING Mating occurs mid-March to June. Young born without a nest during summer (July to September) numbering 8-51 (or 3-103) per litter with an average of 24.
- TERRITORY/HOME RANGE Not known to be territorial or to have a home range.
- FOOD HABITS Consumes fish, mice, treefrogs gotten from streams and stream edges. Also, toads, small mammals, leeches, earthworms, slugs, insects, spiders, tadpoles, birds and salamanders.

# OTHER -

REFERENCES - USDA For Serv - Calif Region (1978); Bernard and Brown (1977); Stebbins (1966).

# COMMON KINGSNAKE (Lampropeltis getulus)

# STATUS -

- DISTRIBUTION/HABITAT Widespread from coast to coast and throughout Southern U.S.: found in Nebraska and South Dakota. Prairie; riparian-deciduous (and their structural stages); cottonwood-willow. Elevational range to 7,000 feet (2,135m).
- SPECIAL HABITAT REQUIREMENTS Found in shady and moist places, in brush plains, under tree trunks, (usually near water) along roadsides, or creek borders, near rock outcrops and under rotting logs.
- BREEDING Mating occurs March through May. Number of eggs laid in well aerated soil may range from 6-12 and average 9. Eggs laid in early summer.
- TERRITORY/HOME RANGE Territory unknown, but home range may be extensive.
- FOOD HABITS Consumes snakes, lizards, mice, birds and their eggs, and small mammals.
- OTHER Mainly terrestrial but can be arboreal. In hot weather is nocturnal but usually diurnal.
- REFERENCES USDA For Serv Calif Region (1978); Bernard and Brown (1977); Stebbins (1966).

# COMMON RATSNAKE (<u>Elaphe</u> <u>obsoleta</u>)

### STATUS -

- DISTRIBUTION/HABITAT Widespread throughout eastern and central
  U.S.: found in eastern Kansas and southeastern Nebraska.
  Cottonwood-willow.
- SPECIAL HABITAT REQUIREMENTS Found in moist, wooded areas or scrublike rocky and hilly areas; under logs; in dry stone stream bads or hollow logs; in high places like bat roosts.
- BREEDING Mating may occur from May to June. Eggs are laid in June or July numbering 6-24. They hatch from August to October. They may be found in or under logs or in moist soil under rocks.
- TERRITORY/HOME RANGE Territoriality unknown; definite home range of about 25-30 acres.
- FOOD HABITS Consumes lizards, amphibians, mammals and young birds.

OTHER - Mainly arboreal but is found on land.

REFERENCES - Wright and Wright (1957); Stickel and Cope (1947).

R034

# CORN SNAKE (Elaphe guttata)

- STATUS Protected in Colorado
- DISTRIBUTION/HABITAT Widespread from South Dakota to Texas:

  found in southeastern and western Colorado, Kansas, southeastern South Dakota and Nebraska. Wooded and rocky hillsides;
  river bottoms; streams and coniferous forests; mid and shortgrass. Elevationally ranges to 6,000 feet (1,830m).
- SPECIAL HABITAT REQUIREMENTS Found under logs, rocks, and in rodent burrows.
- BREEDING Eggs laid number 12-24 and take 6 to 8 weeks to hatch in mid-summer. Hatching occurs from August to September.
- TERRITORY/HOME RANGE Unknown.
- FOOD HABITS Consumes young birds, mice, rats, small rabbits, lizards, frogs.
- OTHER Can be arboreal but mostly stays in burrows. Nocturnal in warm weather.
- REFERENCES Ditmars (1907); Bernard and Brown (1977); Stebbins (1966).

DIAMOND-BACKED WATER SNAKE (Nerodia rhombifera)

## STATUS -

<u>DISTRIBUTION/HABITAT</u> - Widespread from Iowa to Texas: found in eastern and south-central Kansas. Cottonwood-willow.

SPECIAL HABITAT REQUIREMENTS - Aquatic: rivers, ponds, lakes, tanks, ditches, marshes, sloughs, small streams, creeks, water holes, backwaters. Also, found under boards and stones.

BREEDING - Young born from August to October (November) and may number from 18-62.

TERRITORY/HOME RANGE - Unknown.

FOOD HABITS - Consumes fish, frogs, crayfish, toads and young turtles.

OTHER - Arboreal and aquatic.

REFERENCES - Ditmars (1907); Wright and Wright (1957).

R036

EASTERN HOGNOSE SNAKE (Heterodon platyrhinos)

STATUS - Threatened in South Dakota.

DISTRIBUTION/HABITAT - Widespread throughout eastern and central U.S.: found in Kansas, Nebraska, South Dakota. Sand prairies; dry deciduous forest; cottonwood-willow.

SPECIAL HABITAT REQUIREMENTS - Well-drained, loose soil with open vegetation, for example, forest edge, brushland, disturbed areas so as to be near water (lakes, rivers) and/or amphibians.

BREEDING - Eggs are laid at the end of July numbering 24. Hatchlings appear 1 to 2 months later.

TERRITORY/HOME RANGE - Territoriality unknown; have home ranges.

FOOD HABITS - Consumes mainly toads and frogs, insects, reptiles and mammals.

#### OTHER -

REFERENCES - Ditmars (1907); Platt (1969).

# EASTERN RIBBONSNAKE (Thamnophis sauritus)

## STATUS -

U.S. Not usually found in Region 2.

SPECIAL HABITAT REQUIREMENTS - Found in or along grassy ponds, stream banks, meadows, marshes, ditches, pools and pastures. Likes damp places.

BREEDING - Young number about 3-20 (or 12) and are born from July to September.

TERRITORY/HOME RANGE - Unknown.

FOOD HABITS - Consumes small toads, salamanders, tadpoles, fish, mice, spiders, insects.

OTHER - Aquatic at times.

REFERENCES - Ditmars (1907); Wright and Wright (1957).

R038

FLATHEADED SNAKE (Tantilla gracilis)

# STATUS -

<u>DISTRIBUTION/HABITAT</u> - Limited, from Kansas to Texas: found in eastern Kansas. Cottonwood-willow.

or may not be present; under logs, bark, (lime stone rocks); in rotten wood of pine forests, bottomlands; or, on rocky hillsides. Found often after it rains on or under rocks.

BREEDING - Mating occurs in May. Eggs laid in July (or April) in a nest under a rock and number 2 or 3 (or 1-4). Hatching occurs 2 to 3 months later.

TERRITORY/HOME RANGE - Unknown.

FOOD HABITS - Consumes insects, slugs, sowbugs, centipedes.

OTHER -

REFERENCES - Burt (1935); Wright and Wright (1957).

FOX SNAKE (Elaphe vulpina)

STATUS -

DISTRIBUTION/HABITAT - Restricted, from Minnesota to Nebraska: found in Nebraska and South Dakota. Cottonwood-willow; open country; edges of woods.

SPECIAL HABITAT REQUIREMENTS - Found near marshes, shallow ponds, and in stream valleys.

BREEDING - Mating may occur in June and July, and eggs are laid in late June or July numbering 7-29. Hatching may be in September or October.

TERRITORY/HOME RANGE - Unknown.

FOOD HABITS - Consumes young mice and rats, birds and their eggs, rabbits, gophers, ground squirrels and insects.

OTHER - Mostly a ground dweller.

REFERENCES - Ditmars (1907); Wright and Wright (1957).

R040

GLOSSY SNAKE (Arizona elegans)

STATUS - Protected in Colorado.

DISTRIBUTION/HABITAT - Widespread throughout Southwestern U.S.:
found in eastern Colorado, west and central Kansas, extreme
southwestern Nebraska. Cottonwood-willow; midgrass; open,
semiarid areas. Ranges to 6,000 feet (1,830m).

SPECIAL HABITAT REQUIREMENTS - Found in sandy, loose soil and open vegetation; in rocky and loamy areas.

BREEDING - Mating occurs May through July. Eggs laid number 3-23 per clutch with an incubation period of 2 to 3 months.

TERRITORY/HOME RANGE - Unknown.

FOOD HABITS - Consumes lizards, snakes, sometimes small mammals.

OTHER - Nocturnal and crepuscular; burrows.

REFERENCES - Bernard and Brown (1977); Stebbins (1966).

GRAHAM'S CRAYFISH SNAKE (Regina grahamii)

# STATUS -

- <u>DISTRIBUTION/HABITAT</u> Found in eastern and central Kansas, Nebraska. Cottonwood-willow; tallgrass.
- SPECIAL HABITAT REQUIREMENTS Found near ponds, slow streams of prairies, meadows and river valleys; rests in crayfish burrows.
- BREEDING Mating occurs April and May; Young are born from late

  July to August (or September) and number 9-39 with averages
  of 17.

TERRITORY/HOME RANGE - Unknown.

FOOD HABITS - Consumes mostly crayfish.

OTHER - Nocturnal during summer.

REFERENCES - Collins (1974).

R042

GROUND SNAKE (Sonora episcopa)

#### STATUS -

- DISTRIBUTION/HABITAT Restricted to six states around and including Texas: found in southern and central Kansas, extreme southeastern Colorado. Prairie (midgrass) and open woodland. Cottonwood-willow. Ranges to 5,200 feet (1,586m).
- SPECIAL HABITAT REQUIREMENTS Prefers southern, sunny slopes.

  Found on loose, sandy soil with rocks and uses boards, rocks and objects for burrowing.
- BREEDING Eggs laid in late June or July and number 4-6. Hatching occurs in about 2 months.

TERRITORY/HOME RANGE - Unknown.

FOOD HABITS - Consumes spiders, centipedes, scorpions, ants and their eggs, and small vertebrates.

#### OTHER -

REFERENCES - Wright and Wright (1957); Bernard and Brown (1977); Stebbins (1966).

# LINED-SNAKE (Tropidoclonion lineatum)

- STATUS Threatened in South Dakota.
- DISTRIBUTION/HABITAT Restricted to isolated spots in central and south-central U.S.: found in Kansas, southeastern and north-central Colorado, Nebraska, extreme southeastern South Dakota. Mid and shortgrass prairie; open woodlands, flood plains. Elevational range to 5,300 feet (1,616.5m).
- SPECIAL HABITAT REQUIREMENTS Uses boards and other objects for shelter.

BREEDING - Young born in August and numbering 2-12.

TERRITORY/HOME RANGE - Unknown.

FOOD HABITS - Consumes mainly earthworms, but also, insects (sow bugs).

OTHER - Nocturnal and crepuscular; wet weather promotes activity.

REFERENCES - Wright and Wright (1957); Stebbins (1966).

R044

# LONGNOSED SNAKE (Rhinoceilus lecontei)

- STATUS Protected in Colorado.
- DISTRIBUTION/HABITAT Widespread throughout southwestern U.S.

  from Texas to California: found in extreme southeastern
  Colorado, southwestern Kansas. Midgrass prairie; brushland.
  Elevational range to 5,400 feet (1,647m).
- SPECIAL HABITAT REQUIREMENTS Found along river, creek or pond banks and among rocks and boulders.
- BREEDING Mating occurs March through May with number of eggs laid ranging from 3-8 and averaging 5. Moist, loose, well aerated soil is needed.
- TERRITORY/HOME RANGE Not known to be territorial or having a home range.
- FOOD HABITS Consumes lizards, small mammals, and insects, which it finds under objects and on the ground.
- OTHER Can be either nocturnal or crepuscular. Burrows underground during daytime.
- REFERENCES USDA For Serv Calif Region (1978); Wright and Wright (1957).

# MILK SNAKE (Lampropeltis triangulum)

- STATUS Protected in Colorado; rare in Wyoming.
- U.S.: found in Kansas, Nebraska, Colorado, eastern and central central Wyoming, South Dakota. Prairie; river bottoms (broadleaf woodland); rocky hillsides; mountain areas; coniferous forests. Elevational range to 8,000 feet (2,440m).
- SPECIAL HABITAT REQUIREMENTS Found under flat stones, boards, debris, decayed logs and stumps.
- BREEDING Eggs laid in nests during June and July numbering 8-11 (or 5-16) and averaging 6. Depending on temperature, incubation takes 2 months.
- TERRITORY/HOME RANGE Unknown.
- FOOD HABITS Consumes mice and rats, lizards, spiders, earthworms, young snakes, birds and their eggs.
- OTHER Nocturnal especially in summer.
- REFERENCES Ditmars (1907); Stebbins (1966).

R046

# NIGHT SNAKE (<u>Hypsiglena torquata</u>)

- STATUS Protected in Colorado.
- DISTRIBUTION/HABITAT Widespread throughout southwest and western
  U.S.: found in southwestern Kansas and southeastern Colorado.
  Mid and shortgrass prairie, pinyon-juniper. Ranges up to
  7,000 feet (2,135m).
- SPECIAL HABITAT REQUIREMENTS Found in rock outcroppings and crevices; and, in sandy areas. Uses rocks, boards and dead branches for shelter.
- BREEDING Eggs laid April through July with numbers ranging from 4-8 and averaging 5. Mines and rocky areas with underground cracks are egg-laying sites.
- TERRITORY/HOME RANGE Territoriality uncertain. May have a restricted home range.
- FOOD HABITS Consumes salamanders and small lizards found either underground or under objects; also east frogs and insects.

  OTHER Nocturnal.
- REFERENCES USDA For Serv Calif Region (1978); Bernard and Brown (1977); Stebbins (1966).

# NORTHERN WATER SNAKE (Nerodia sipedon)

- STATUS Protected in Colorado.
- <u>U.S.:</u> found in eastern Colorado, Kansas, Nebraska, southern South Dakota. Cottonwood-willow; riparian sites. Elevational range to 4,500 feet (1,375m).
- SPECIAL HABITAT REQUIREMENTS Highly aquatic: along creeks and streams, river marshes, lakes, ponds, rainpools, sloughs, brooks, meadows, bogs, river bottoms, reedy and saltwater marshes.
- BREEDING Young born August through October in numbers ranging from 9-70 (76, 99) and averaging 26.
- TERRITORY/HOME RANGE Territoriality unknown; definite small home range.
- FOOD HABITS Consumes mainly frogs, insects, crustaceans, salamanders, toads, fish and small mammals.
- OTHER Seldom seen away from water.
- REFERENCES Wright and Wright (1957); Fraker (1970); Stebbins (1966).

# NORTHWESTERN GARTERSNAKE (Thamnophis ordinoides)

### STATUS -

- DISTRIBUTION/HABITAT Restricted to northwestern U.S. Not usually found in Region 2. Elevational range to 4,000 feet (1,220m).
- SPECIAL HABITAT REQUIREMENTS Found near water along ditches with much vegetation, near stagnant pools, in meadows and open forested areas.
- BREEDING Mating occurs from late March to mid-April. Young born about 9 weeks after mating and number 4-8.

TERRITORY/HOME RANGE - Unknown.

FOOD HABITS - Consumes frogs, slugs and salamanders.

OTHER - Terrestrial.

REFERENCES - Wright and Wright (1957); Stebbins (1966).

R049

# PINE SNAKE (Pituophis melanoleucus)

- <u>STATUS</u> Protected in Colorado.
- DISTRIBUTION/HABITAT Widespread throughout all U.S.: found in Colorado, Kansas, Nebraska, Wyoming, South Dakota. Riparian-deciduous sites are optimum; rocky hillsides; grasslands. Elevational range to 9,000 feet (2,745m).
- SPECIAL HABITAT REQUIREMENTS Found in loamy rocky, sandy, gravelly soils; also, under rocks, trash, boards or logs.
- BREEDING Mating occurs April through June. Numbers of eggs laid mid-July to August average 7 and range from 3-12. Damp, loose, well-aerated soil is needed.
- TERRITORY/HOME RANGE Unknown.
- FOOD HABITS Consumes squirrels, small rabbits, rodents, birds and their eggs, insects and lizards.
- OTHER Partly crepuscular; may be arboreal in order to get birds.

  Commonly known as bull snake in Region 2.
- REFERENCES USDA For Serv Calif Region (1978); Bernard and Brown (1977); Stebbins (1966).

PLAINBELLY WATER SNAKE (Nerodia erythrogaster)

STATUS -

DISTRIBUTION/HABITAT - Widespread throughout eastern and southcentral U.S.: found in Kansas. Cottonwood-willow; midgrass. Elevational range to about 6,700 feet (2,043.5m).

SPECIAL HABITAT REQUIREMENTS - Primarily aquatic: near ponds, streams and rivers (permanent or semi-permanent), ditches.

BREEDING - Mating occurs in late April and May. Young born from September to October, and number 8-27 (averaging 18).

TERRITORY/HOME RANGE - Unknown.

FOOD HABITS - Consumes fish, salamander larvae, crayfish, tadpoles, and frogs.

OTHER - A swimmer, nocturnal and crepuscular.

REFERENCES - Bernard and Brown (1977); Wright and Wright (1957); Stebbins (1954).

R051

PLAINS BLACKHEADED SNAKE (Tantilla nigriceps)

STATUS - Protected in Colorado.

DISTRIBUTION/HABITAT - Limited from Nebraska to Texas: found in eastern Colorado, west and central Kansas, southwestern Nebraska. Tall and shortgrass prairie; riparian. Ranges to 5,000 feet (1,525m).

SPECIAL HABITAT REQUIREMENTS - Found under flat rocks and boards, on hillsides especially in damp weather.

BREEDING - Eggs laid during summer in nests. Hatching occurs in fall.

TERRITORY/HOME RANGE - Unknown.

FOOD HABITS - Consumes insects.

OTHER - Is a burrower; increased rainfall yields increased activity.

REFERENCES - Langlois (1978); Stebbins (1966); Collins (1974).

# PLAINS GARTERSNAKE (Thamnophis radix)

## STATUS -

DISTRIBUTION/HABITAT - Widespread throughout central and northern
Midwest U.S.: found in Kansas, Nebraska, eastern Colorado,
eastern Wyoming, South Dakota. Pinyon-juniper; short, mid
and tallgrass prairie; ponderosa pine.; cottonwood-willow.

SPECIAL HABITAT REQUIREMENTS - Found along or at bottom of streams and pools (and possibly in dry areas). Also, around edges of rivers, lakes, sloughs.

BREEDING - Mating occurs in April and May (sometimes fall). Young born in August (or late July to September) and number 5-92 per litter.

TERRITORY/HOME RANGE - Unknown.

FOOD HABITS - Consumes fish, tadpoles, earthworms, frogs, small rodents, toads and dead birds.

OTHER - At times, aquatic.

REFERENCES - Ditmars (1907); Stebbins (1966).

R053

PRAIRIE KINGSNAKE (Lampropeltis calligaster)

### STATUS -

DISTRIBUTION/HABITAT - Widespread throughout eastern and central
U.S.: found in Kansas and southeastern Nebraska. Cottonwoodwillow; midgrass prairie.

SPECIAL HABITAT REQUIREMENTS - Found along roads, in rock ledges, pastures, meadows and both up- and bottom-lands.

BREEDING - Eggs laid in July and August and number from 4-13.

TERRITORY/HOME RANGE - Unknown.

FOOD HABITS - Consumes small rodents, lizards, birds, gophers, small fish, smaller snakes and toads.

### OTHER -

REFERENCES - Wright and Wright (1957); Ditmars (1907).

# RED-BELLIED SNAKE (Storeria occipitomaculata)

- STATUS Rare in Wyoming; threatened in South Dakota.
- DISTRIBUTION/HABITAT Widespread throughout eastern U.S.: found in eastern Kansas, extreme and adjacent sections in eastern Wyoming, western South Dakota. Cottonwood-willow; ponderosapine; hilly areas. Ranges up to 3,000 feet (915m).
- SPECIAL HABITAT REQUIREMENTS Found under boards, flat stones or loose rocks; in or near sphagnum bogs or margins of wet or open areas.
- BREEDING Mating occurs in spring and fall. Young born in (late June), August and September with numbers ranging from 6-13 (or 1-23) per litter.

TERRITORY/HOME RANGE - Unknown.

FOOD HABITS - Consumes slugs, (soft-bodied) beetle grubs, earthworms, snails and small insects.

#### OTHER -

REFERENCES - Wyo. G&F Dept (1974); Ditmars (1907); Stebbins (1966).

R055

RINGNECK SNAKE (Diadophis punctatus)

#### STATUS -

- DISTRIBUTION/HABITAT Widespread throughout southeastern, central and west coast of U.S.: found in Kansas, southeastern corner of Colorado, eastern Nebraska, South Dakota. Cottonwood-willow; mid, and shortgrass prairie; mountain and stream areas. Ranges up to about 7,000 feet (2,135m).
- SPECIAL HABITAT REQUIREMENTS Prefers rotted, fallen trees and loose, flat rocks, boards and debris for shelter.
- BREEDING Eggs laid April through June and numbers range from 1-4 or greater, averaging 2. They may be laid in rotten logs. Hatching (probably) occurs within 2 to 2.5 months.
- TERRITORY/HOME RANGE Territoriality and home range not known.
- FOOD HABITS Consumes treefrogs, small lizards, earthworms and salamanders which it finds under objects above ground.

# OTHER -

REFERENCES - USDA For Serv - Calif Region (1978); Ditmars (1907); Stebbins (1966).

ROUGH EARTHSNAKE (Virginia striatus)

STATUS - Threatened in Kansas.

U.S. to Texas and some central states: found in southeastern Kansas. Open areas and edges of woodlands.

SPECIAL HABITAT REQUIREMENTS - Fourd on rocky hillsides under rocks or near hilltops.

BREEDING - Mating occurs from April to May. Young are born from July to September and number 2-8, averaging 5.

TERRITORY/HOME RANGE - Unknown.

FOOD HABITS - Consumes earthworms, slugs, snails.

OTHER - Probably nocturnal.

REFERENCES - Collins (1974).

R057

ROUGH GREENSNAKE (Opheodrys aestivus)

## STATUS -

DISTRIBUTION/HABITAT - Widespread throughout eastern and south central U.S.: found in eastern Kansas. Cottonwood-willow; prairie; wooded canyons; wooded meadow. Ranges to 5,000 feet (1,525m).

SPECIAL HABITAT REQUIREMENTS - Found in forest areas with much vegetation and moisture; also, on bushes, small trees and vines; along stream, marsh and creek edges, roads and in low grass.

BREEDING - Eggs laid from July to August and numbers range from 4-11. Hatchlings appear in late August or September.

TERRITORY/HOME RANGE - Unknown.

FOOD HABITS - Consumes grasshoppers, spiders, crickets, frogs, snails.

OTHER - A swimmer and arboreal.

REFERENCES - Wright and Wright (1957); Stebbins (1966).

SMOOTH EARTHSNAKE (Virginia valeriae)

#### STATUS -

- U.S.: found in eastern Kansas. Cottonwood-willow and abandoned fields.
- SPECIAL HABITAT REQUIREMENTS Lives on rocky hillsides and moist woodland edges. Forages at night and spends the day hidden beneath rocks and logs or in leaf litter.
- BREEDING Mates in the spring and also may mate in the fall. Number of young per litter ranges from 2-12. Birth generally occurs during August or September.

TERRITORY/HOME RANGE -

FOOD HABITS - Consumes worms, insect larvae.

OTHER -

REFERENCES - Ditmars (1907).

R059

SMOOTH GREENSNAKE (Opheodrys vernalis)

STATUS - Protected in Colorado; rare in Wyoming.

- DISTRIBUTION/HABITAT Widespread throughout northeast and northxentral U.S. and parts of west: found in central Colorado, northeastern Kansas, eastern and central Nebraska, parts of Wyoming, east, central and isolated western parts of South Dakota. Riparian; pinyon-juniper; mountain meadow; scrub-oak; marshes. Ranges to 9,500 feet (2,897.5m).
- rocky areas with much grass and moisture.
- BREEDING Eggs laid from June to early August and number 6-8 per clutch. Temperatures above 17.80°C in May inhibit reproduction.

TERRITORY/HOME RANGE - Unknown.

FOOD HABITS - Consumes spiders and smails.

OTHER - Mainly ground-dwelling but sometimes climbs bushes.

REFERENCES - Ditmars (1907); Langolis (1978); Stebbins (1966).

STRIPED WHIPSNAKE (Masticophis taeniatus)

#### STATUS -

DISTRIBUTION/HABITAT - Widespread throughout western U.S.: found in western and peripheral Colorado. Brushland; sagebrush; pinyon-juniper. Elevational range to about 9,000 feet (2,745m).

SPECIAL HABITAT REQUIREMENTS - Prefers open canyons, stream edges and warm, brushy foothills. Uses rodent burrows, trees, shrubs and rock outcrops for shelter.

BREEDING - Eggs laid during May or June.

TERRITORY/HOME RANGE - Unknown.

FOOD HABITS - Consumes small mammals, lizards and snakes.

OTHER -

REFERENCES - Wright and Wright (1957); Bernard and Brown (1977); Stebbins (1966).

R061

WESTERN HOGNOSE SNAKE (Heterodon nasicus)

STATUS - Protected in Colorado.

- DISTRIBUTION/HABITAT Widespread from Canada to Texas and throughout midwest U.S.: found in Nebraska, Kansas, South Dakota, eastern Colorado, eastern Wyoming. Riparian canyons; cottonwood-willows; short, mid and tallgrass prairie. Ranges to 8,000 feet (2,440m).
- SPECIAL HABITAT REQUIREMENTS Found in floodplains of streams, gravelly or sandy grasslands with or without trees and/or shrubs. Uses loose soil for burrowing.
- BREEDING Eggs laid during July and August in numbers of 4-40 per clutch and averaging 9 or 13. Hatchlings appear 1 to 2 months later.
- TERRITORY/HOME RANGE Territoriality unknown; have a definite home range.
- FOOD HABITS Consumes mainly toads, frogs, lizards, salamanders, birds, insects, small mammals, snakes and lizard eggs.

OTHER - A burrower.

REFERENCES - Ditmars (1907); Platt (1969); Stebbins (1966).

## WESTERN RIBBONSNAKE (Thamnophis proximus)

### STATUS -

- DISTRIBUTION/HABITAT Widespread throughout central U.S.: found in Kansas, extreme southeastern corner of Colorado, eastern Nebraska. Cottonwood-willow; midgrass prairie. Ranges to elevations of 8,000 feet (2,440m).
- SPECIAL HABITAT REQUIREMENTS Can be found among aquatic plants at bottom of streams and ponds; also, in emergent plants bordering streams, ponds and lakes, i.e., around permanent waters. Found in river creek bottoms.
- BREEDING Mating occurs March through April. Young are born July through August. Number of young is from 5-27.

TERRITORY/HOME RANGE - Unknown.

FOOD HABITS - Consumes small frogs or fish, earthworms, insects, mice and salamanders.

OTHER - At times, aquatic and arboreal.

REFERENCES - Ditmars (1907); Wright and Wright (1957); Stebbins (1966).

### WESTERN TERRESTRIAL GARTERSNAKE (Thamnophis elegans)

### STATUS -

- DISTRIBUTION/HABITAT Widespread throughout western U.S. from Canada to Texas: found in Colorado, Wyoming, western South Dakota. Riparian-deciduous; mountain meadow areas are optimal habitat. Ranges to about 10,000 feet (3,050m).
- SPECIAL HABITAT REQUIREMENTS Mostly found in or near water, i.e., near permanent or semi-permanent streams and ponds.
- BREEDING Mating occurs April through June with young born without nests during summer (mid-June to September). Number of young range from 12-30 (or 6-19) with an average of 20.
- TERRITORY/HOME RANGE Territoriality not observed. Home range uncertain, may be restricted.
- FOOD HABITS Consumes treefrogs, fish, yellow-legged frogs and tadpoles, mice, young birds, lizards, earthworms, salamanders, leeches, insects in streams, lakes or meadows.

### OTHER -

REFERENCES - USDA For Serv - Calif Region (1978); Bernard and Brown (1977); Stebbins (1966).

### WORM SNAKE (Carphophis amoenus)

### STATUS -

DISTRIBUTION/HABITAT - Widespread from East Coast to Kansas: found in eastern Kansas, southeastern corner of Nebraska. Cottonwood-willow; tallgrass prairie. in Eastern Kansas, Southeastern corner of Nebraska. Cottonwood-willow; tall-grass prairie.

SPECIAL HABITAT REQUIREMENTS - Found after rainstorms in forest floor, under loose bark or decayed tree trunks or litter, under rocks and stones, boards or sawdust piles.

BREEDING - 2-8 eggs laid at the end of July or the beginning of August. Hatching occurs in August and September.

TERRITORY/HOME RANGE - Unknown.

FOOD HABITS - Consumes soft-bodied grubs of insects and earthworms.

OTHER -

REFERENCES - Ditmars (1907); Wright and Wright (1957).

R065

## STINKPOT (Sternotherus odoratus)

### STATUS -

DISTRIBUTION/HABITAT - Widespread throughout eastern and part of central U.S.: found in Kansas. Cottonwood-willow.

SPECIAL HABITAT REQUIREMENTS - Aquatic: streams, ponds, rivers, ditches, lakes. Avoids temporary pools (or puddles). Hibernates in muddy, shallow water or in wet debris. Basks in shallow water in spring.

BREEDING - Mating may occur from April to October. Eggs laid May through August numbering 1-5.

TERRITORY/HOME RANGE - Unknown.

FOOD HABITS - Consumes insects, snails, clams, plants, vegetable debris, carrion, crayfish and game fish.

#### OTHER -

REFERENCES - Carr (1952); Conant (1958).

ALLIGATOR SNAPPING TURTLE (Macroclemys temminckii)

STATUS - Threatened in Kansas.

DISTRIBUTION/HABITAT - Widespread from Florida to Kansas. Riparian.

SPECIAL HABITAT REQUIREMENTS - Aquatic: rivers, large streams, canals, oxbows, sloughs, "dead lakes," (and near running water). Likes muddy bottoms.

BREEDING - Eggs laid (in a nest) numbering 15-50. Hatchlings appear in 3 to 4 months.

TERRITORY/HOME RANGE - Unknown.

FOOD HABITS - Consumes fish.

OTHER -

<u>REFERENCES</u> - Carr (1952); Collins (1974).

R067

BLANDING'S TURTLE (<a href="Emydoidea blandingii">Emydoidea blandingii</a>)

STATUS - Threatened in South Dakota.

DISTRIBUTION/HABITAT - Widespread throughout Great Lakes region (north-central) U.S.: found in South Dakota, Nebraska. Cottonwood-willow; mid and tallgrass prairie.

SPECIAL HABITAT REQUIREMENTS - Aquatic. Prefers smail, slowmoving, shallow streams and pond areas; and, wet, marshy areas.

BREEDING - Mating occurs March through October with egg numbers of 6-11 being laid.

TERRITORY/HOME RANGE - Unknown.

FOOD HABITS - Omnivorous and feeds on aquatic and/or terrestrial species such as: crustaceans, insects, vegetable debris, plants, mollusks, fish, carrion, leeches, insect larvae, tender shoots and berries.

OTHER - Hibernates in water, or in mud in water.

REFERENCES - Carr (1952); Ditmars (1907).

### EASTERN BOX TURTLE (Terrapene carolina)

### STATUS -

- DISTRIBUTION/HABITAT Widespread throughout eastern and central U.S.: found in Kansas and South Dakota. Cottonwood-willow.
- SPECIAL HABITAT REQUIREMENTS Essentially terrestrial and can be found either near ponds and brooks of open wooded areas or on stream banks. Present during rainy weather.
- BREEDING Nests built on elevated terrain, on grassy lawns, or in sandy soil. Eggs laid number from 2-7 with a variable incubation period of 70 to 114 days. Hatchlings occur August to September.
- TERRITORY/HOME RANGE Not territorial; but has a definite home range.
- FOOD HABITS Young are mainly carnivorous and consume earthworms, slugs, insect larvae, snails; whereas, adults are mainly herbivorous eating fungi, fruits, berries, vegetable material.
- OTHER Hibernates in mud of stream bottoms, or in loose soil, or in vegetable debris in clear sand. In summer, burrows into moist soil or leaf mold, or may burrow into bottom of water during a drought.
- REFERENCES Carr (1952); Stickel (1950).

### MAP TURTLE (Graptemys geographica)

#### STATUS -

DISTRIBUTION/HABITAT - Widespread from Great Lakes region south to Arkansas: found in South Dakota, Kansas. Cottonwood-willow; riparian.

SPECIAL HABITAT REQUIREMENTS - Prefers large bodies of water, e.g., rivers and lakes where it may be found in its backwaters and sloughs.

BREEDING - Mating occurs in April and fall. Eggs laid from end of May to July.

TERRITORY/HOME RANGE - Unknown.

FOOD HABITS - Consumes crayfish, snails, aquatic insects, fish and carrion.

### OTHER -

REFERENCES - Carr (1952); Conant (1958).

# FALSE MAP TURTLE (Graptemys pseudogeographica)

STATUS - Threatened in South Dakota.

DISTRIBUTION/HAIBTAT - Widespread from Minnesota to Louisiana (central U.S.); found in Eastern Kansas, South Dakota, Nebraska. Cottonwood-willow; mid and tallgrass prairie.

SPECIAL HABITAT REQUIREMENTS - Aquatic: rivers, sloughs, streams, lakes and ponds.

BREEDING -

TERRI-TORY/HOME RANGE - Unknown.

FOOD HABITS - Young: shelled snails, easy-to-crush mollusks, insects larvae. Adults: aquatic plant stems, leaves and bulbous roots.

OTHER -

REFERENCES - Pope (1939).

### PAINTED TURTLE (Chrysemys picta)

### STATUS -

- DISTRIBUTION/HABITAT Widespread throughout eastern, (some south), north-central and central U.S.: found in western Wyoming, western Colorado, Kansas, Nebraska, South Dakota. Riparian; Douglas-fir; ponderosa pine; cottonwood-willow; sagebrush; short, mid and tallgrass. Elevational range to 6,000 feet (1,830m).
- SPECIAL HABITAT REQUIREMENTS Aquatic. Prefers ponds, marshes, slow streams, ditches, lake shores, river oxbows. Almost totally aquatic but does come onto land. Needs boulders, logs, or floating vegetation for basking.
- BREEDING Eggs laid (and nests) from May to July on high ground facing south near water and may number from 3-11.
- TERRITORY/HOME RANGE Not known to be territorial, but has definite home range.
- FOOD HABITS Omnivorous. Consumes tadpoles, fish, aquatic insects, water plants, mollusks, crustaceans, earthworms, frogs, and scavenges on birds, fish, reptiles, mammals.
- OTHER Hibernates in mud or trash under water. Industrial water pollution is a limiting factor to populations.
- REFERENCES Carr (1952); Langlois (1978); Cagle (1944).

SMOOTH SOFTSHELL TURTLE (Trionyx muticus)

### STATUS -

DISTRIBUTION/HABITAT - Widespread from Pennyslvania to Texas and South Dakota: found in Kansas, Nebraska, southeastern South Dakota. Cottonwood-willow. Ranges to 5,000 feet (1,525m).

SPECIAL HABITAT REQUIREMENTS - Aquatic. Prefers large, slow rivers and clear sandy creeks, lakes, and streams.

BREEDING - Nests built May through July either on a small island or sandy, muddy shores.

TERRITORY/HOME RANGE - Unknown.

FOOD HABITS - Consumes fish, crayfish, aquatic insect larvae, fruits and a small portion of vegetable matter, snails, earthworms, frogs, mudpuppies, worms, bivalves.

OTHER - Sometimes nocturnal.

REFERENCES - Carr (1952); Bernard and Brown (1977).

### SNAPPING TURTLE (Chelydra serpentina)

- STATUS Game in Nebraska, bag limit in South Dakota.
- DISTRIBUTION/HABITAT Widespread throughout eastern and central U.S.: found in eastern Colorado, eastern Wyoming, Kansas, Nebraska, South Dakota. Riparian; mid, tall and shortgrass prairie; cottonwood-willow. Ranges to above 5,000 feet (1,525m).
- SPECIAL HABITAT REQUIREMENTS Aquatic: permanent waters with muddy bottoms, i.e., ponds, warm water lakes, marshes, slow rivers.

  Abundant vegetation needed. Young turtles need aquatic vegetation for food and support.
- BREEDING Mating may be from late April (May) to November. Nesting occurs June through October. Eggs laid on land at this time (i.e., mainly June) approximate 25 and range from 20-30. Hatching occurs after 81 to 90 (or 48 to 125) days of incubation during late summer or early fall. Rain in the fall is needed to soften the nest for hatchlings to dig out of or else they will overwinter.
- TERRITORY/HOME RANGE Not territorial, but has a home range, e.g., an entire pond.
- FOOD HABITS Consumes fish, fresh-water sponges, mollusks, carrion, vegetable matter, crayfish, clams, snails, birds, mammals, reptiles, frogs, flatworms, small turtles, and leeches.

  Obtain food by ambush or active pursuit. They are bottom, mid-water and surface foragers.
- OTHER Hibernates from about October to May in northern part of range. Sometimes hibernates in muskrat burrows besides in muddy water. A poor swimmer, so walks on pond and stream bottoms also rests on bottoms among plants. Seldom leaves water.
- REFERENCES Carr (1952); Bernard and Brown (1977); Hammer (1969).

- SPINY SOFTSHELL TURTLE (Trionyx spiniferus)
- STATUS Protected in Colorado; threatened in South Dakota.
- U.S.: found in peripheral and eastern Colorado, eastern Wyoming, Nebraska, Kansas, South Dakota. Cottonwood-willow, mid and shortgrass.
- SPECIAL HABITAT REQUIREMENTS Aquatic: permanent streams, seeps and creeks, ponds, large, slow-moving rivers and canals.
- BREEDING Eggs laid (i.e., nests) from (May) June until the end of July. Numbers range from 10 or 12-25 (or 4-32). Hatchlings appear late August through October or may overwinter in northern areas. Nests are located within 30 feet (9m) of shoreline.
- TERRITORY/HOME RANGE Territory unknown. Home range (in Minnesota) was 100-600 feet (27-180m).
- FOOD HABITS Consumes insects, crayfish, vegetable debris, snails, aquatic plants, tadpoles, frogs, fish, mollusks, earthworms.
- OTHER Hibernates in sand or mud on bottom of rivers or ponds; sometimes nocturnal. Pollution and pesticides may be harmful.
- REFERENCES Carr (1952); Langlois (1978); Bernard and Brown (1977).

## WESTERN BOX TURTLE (Terrapene ornata)

- <u>STATUS</u> Protected in Colorado.
- DISTRIBUTION/HABITAT Widespread throughout central U.S.: found in eastern Colorado, southeastern Wyoming, Kansas, southwestern South Dakota, Nebraska. Cottonwood-willow; short, mid, and tallgrass prairie; open woodland. Ranges to 6,000 feet (1,830m).
- SPECIAL HABITAT REQUIREMENTS Found on sandy soil where low shrubs or shallow burrows are used for shelter.
- BREEDING Mating may occur from May to October. Eggs are laid (i.e., nesting) from May to July and numbers average 5 and range from 2-8. Eggs hatch in late summer.

### TERRITORY/HOME RANGE - Unknown.

- FOOD HABITS Omnivorous: consumes live insects, small animals, earthworms, plant matter (leaves, tendershoots) and berries.
- OTHER Readily enters water when available, in summer may follow rain-formed pools and ponds.
- REFERENCES Carr (1952); Langlois (1978); Bernard and Brown (1977).

## YELLOW-MUD TURTLE (Kinosternon flavescens)

STATUS - Protected in Colorado.

DISTRIBUTION/HABITAT - (Rather) limited to southern-midwest U.S.:
found in southeastern and eastern Colorado, Kansas, southern
Nebraska. Riparian; open woodland and semi-arid grassland;
cottonwood-willow.

SPECIAL HABITAT REQUIREMENTS - Mainly aquatic: ponds, rivers, marshes, permanent or semi-permanent lakes or streams. Prefers muddy water but is on land during rainy season.

#### BREEDING -

TERRITORY/HOME RANGE - Unknown.

FOOD HABITS - Omnivore: consumes small mollusks, aquatic plants, insects.

OTHER - Feeds, lays eggs and basks on land.

REFERENCES - Carr (1952); Langlois (1978); Bernard and Brown (1977).

YELLOW-BELLIED TURTLE (Chrysemys scripta)

### STATUS -

<u>DISTRIBUTION/HABITAT</u> - Found in Kansas and Nebraska. Cottonwood-willow; mid and tallgrass prairie.

SPECIAL HABITAT REQUIREMENTS - Mainly aquatic: ponds, small streams, lake edges, sloughs. Prefers muddy bottoms and quiet waters.

BREEDING - Egg laying and nesting seen May through July. Hatchlings of this (and other) species may remain in nest until heavy rains can soften soil that is over them.

TERRITORY/HOME RANGE - Unknown.

FOOD HABITS - Consumes crayfish, shrimp, fish, snails, tadpoles.

OTHER -

REFERENCES - Carr (1952); Bernard and Brown (1977).

COLORADO CHECKERED WHIPTAIL (Cnemidophorus tesselatus)

#### STATUS -

- DISTRIBUTION/HABITAT Restricted to four states (Colorado, Texas, New Mexico and Arizona): found in southeastern Colorado.
  Riparian; pinyon-juniper; gravel bed; mid and shortgrass prairie. Ranges from sea level to 7,000 feet (2,135m).
- SPECIAL HABITAT REQUIREMENTS Found on fine soil along streams in grass or in rocky areas with low scattered vegetation. May inhabit rocky hillsides or canyons where flat areas are present for running.
- BREEDING Mating is in June. Eggs number from 2-4 and are laid during July. Incubation takes 30 to 35 days. Hatchlings appear in August.

TERRITORY/HOME RANGE - Unknown.

FOOD HABITS -

OTHER -

REFERENCES - Smith (1946); Langlois (1978); Bernard and Brown (1977).

## PLATEAU STRIPED WHIPTAIL (Cenmidophorus velox)

### STATUS -

DISTRIBUTION/HABITAT - Restricted to four states (Colorado, Arizona, New Mexico, Nevada): found in southwestern and western Colorado. Pinyon-juniper; riparian; oak-woodland to edge of ponderosa pine. Elevationally ranges from 5,000 to 8,000 feet (1,525-2,440m).

SPECIAL HABITAT REQUIREMENTS - Found in rocky and open areas; also, along intermittent and permanent streams (in lower mountains).

### BREEDING -

TERRITORY/HOME RANGE - Unknown.

FOOD HABITS - Consumes arthropods.

### OTHER -

REFEREN CES - Bernard and Brown (1977).

WESTERN WHIPTAIL (Cnemidophorus tigris)

#### STATUS -

DISTRIBUTION/HABITAT - Widespread in western U.S.: found in western Colorado. Riparian; pinyon-juniper; sagebrush. Ranges up to and above 5,000 feet (1,525m).

SPECIAL HABITAT REQUIREMENTS - Found on roadsides and other open areas for running. Ground may be rocky, sandy or firm.

BREEDING - Eggs laid from May to June numbering 2-8 with an average of 5. Loose, aerated soil is needed.

TERRITORY/HOME RANGE - Territoriality uncertain; home range unknown.

FOOD HABITS - Consumes small animals and insects on the ground.

OTHER - Avoids dense grasslands or thick shrub growth.

REFERENCES - USDA For Serv - Calif Region (1978); Langlois (1978); Stebbins (1966).

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